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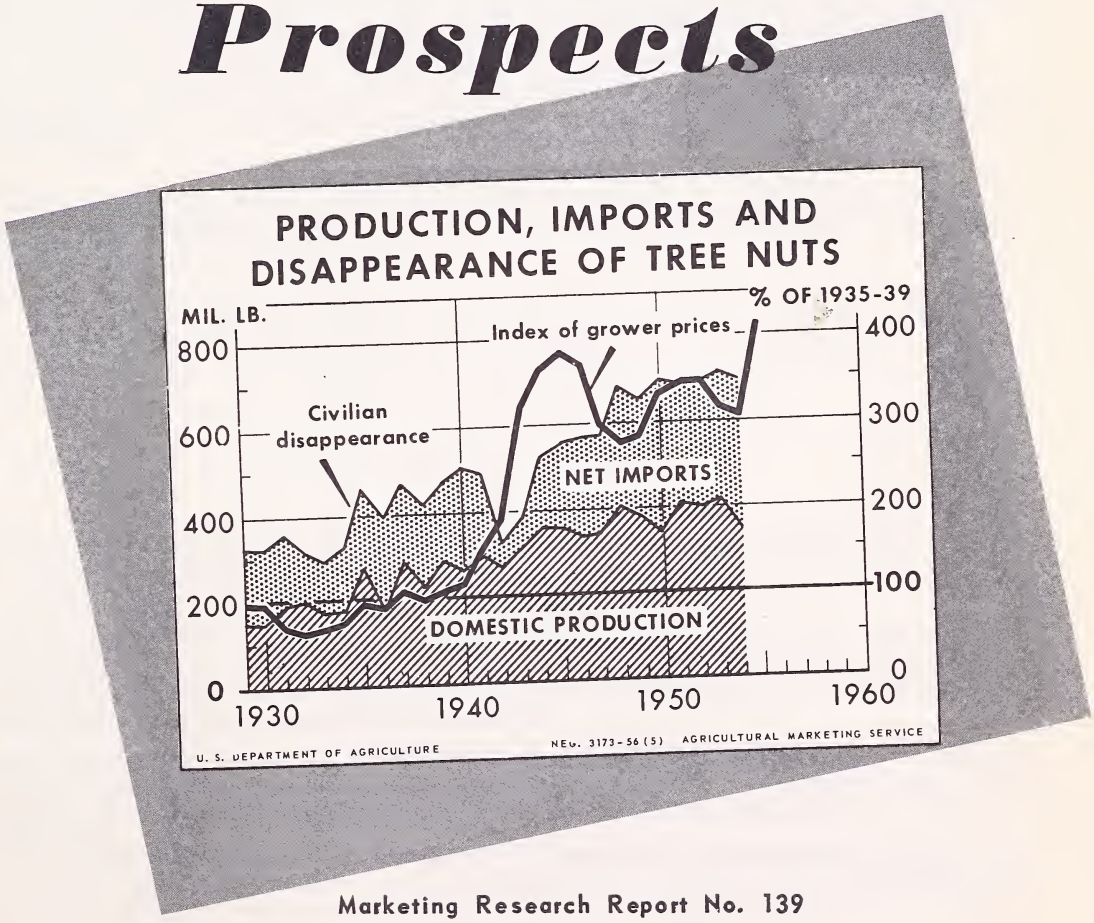
U.S. DEPARTMENT OF AGRICULTURE

Marketing TREE NUTS

Trends and Prospects



Marketing Research Report No. 139

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE Marketing Research Division
Washington, D. C. October 1956

CONTENTS

	Page
Summary	iii
Introduction	1
Supply	1
Domestic production	2
Federal marketing programs	7
Foreign production	7
Imports	8
Tariffs	9
Outlook for supplies	9
Disposition	11
Domestic Consumption	11
Channels of distribution	12
Exports	14
Outlook for demand	16
Prices	17
Grower prices	17
Wholesale prices	20
Competition	22
Appendix	24
List of tables in appendix	24

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SUMMARY

1. The commercial production of almonds, filberts, and walnuts is confined to the three west coast States, with California leading in the production of almonds and walnuts and Oregon producing most of the filberts. Pecans are produced in the southeastern and south central States. Total production of tree nuts reached a high point of 208,590 tons in 1953, due, primarily, to a record harvest of pecans.

2. Most of the foreign production of domestic type tree nuts is in countries bordering the Mediterranean Sea. Other nuts which are not grown in the United States but are competitive with domestic tree nuts are grown in India, East Africa, and South America.

3. Total imports of tree nuts have increased since 1929 but the composition of the imports has changed. Practically all of the imported domestic-type tree nuts are shelled but these comprise only 20 percent of the total imports of shelled nuts. With the exception of a few pecans from Mexico, no domestic-type tree nuts are imported in-shell.

4. Based on the number of bearing and nonbearing trees the total production of tree nuts in the future should increase. The production of almonds is expected to increase slowly for the next 5 years, but in response to current record prices, new plantings will result in greater increase in production in the 1960's. Walnut production is gradually increasing with increased production in northern California and Oregon being partially offset by orchard removals in southern California. New plantings and the increased age of presently bearing or partially bearing trees portend greatly increased walnut production by 1970. Pecan production will continue to fluctuate more than the production of other tree nuts, but the trend will continue upward due to the increased plantings of improved varieties. The production of filberts has increased in recent years due to increased yields from fewer trees. With a decrease of bearing and nonbearing trees, total production is expected to decrease in the next few years unless future prices are obtained in excess of the 1955 level.

5. The total consumption of tree nuts has trended upward following the general pattern of population growth. However, the increases in per capita consumption have been greater in foreign than in domestic tree nuts.

6. Shelled pecans and walnuts compete more directly than other types of tree nuts, both being sold unsalted principally to bakers and to household users. Confectioners use most of the almonds and nut salters are the principal outlet for shelled filberts. Grocery stores are the primary outlet for in-shell tree nuts which are sold in mixtures or straight packs primarily during the holiday season of November and December.

7. Exports of domestic tree nuts usually consist of surplus domestic supplies and have never exceeded 5 percent of the total domestic production.

8. If the per capita consumption remains at the 1954 level, population growth alone would insure a demand for tree nuts by 1975 that will far exceed current domestic supplies. However, per capita consumption of tree nuts can be expected to increase with an increase in the general price level and new uses for tree nuts.

9. During the period 1946-54 grower prices for tree nuts were generally less favorable than those for other crops. The index of prices received for tree nuts by farmers during this period has averaged well below the index of prices received for peanuts and the index of prices received for all agricultural crops.

10. Wholesale prices for tree nuts are affected by the foreign supplies of competing nuts, and tariffs and import fees and/or quotas established by the United States. Owing to small world supplies of tree nuts, the 1955-56 prices for domestic tree nuts are the highest ever recorded.

11. The current consumption of tree nuts is small compared with the consumption of peanuts. Due to differences in costs of production, it is not expected that tree nuts will compete with peanuts on a price basis.

MARKETING TREE NUTS--TRENDS AND PROSPECTS

By Jules V. Powell and Richard S. Berberich[1]
agricultural economists, Marketing Research Division

INTRODUCTION

Although tree nuts have been grown and consumed in the United States since colonial times, the production of almonds, filberts, pecans, and English or Persian walnuts on a commercial basis is a relatively new agricultural enterprise. Aided by favorable growing conditions and a ready market, the industry has expanded rapidly, and during the last 25 years total production has more than doubled. Since the early 1930's, the United States has produced more tree nuts than it imported.

The rapid expansion of the tree nut industry has been marked by wide fluctuations in the quantities of the various kinds of nuts produced with resulting marketing problems for growers and grower organizations. This publication brings together the information available on the marketing of tree nuts in a form which should be useful to growers and marketers in assessing the prospects for the industry and the role which they will play in it.

SUPPLY

Total supplies of tree nuts for domestic consumption are comprised of United States production plus imports from other countries. In recent years, domestic production has accounted for approximately 60 percent and imports about 40 percent of the domestic supplies.

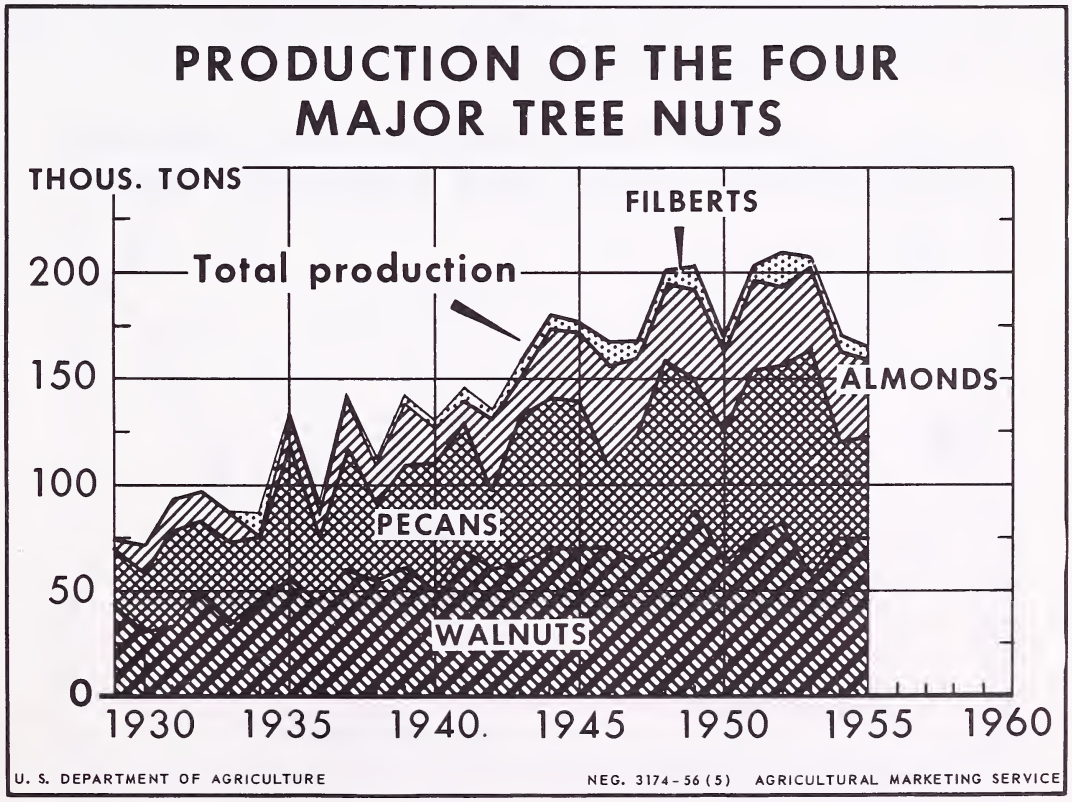


FIGURE 1

[1] Mr. Berberich transferred to Commodity Stabilization Service September 1955.

Domestic Production

The commercial production of edible tree nuts in the United States has increased steadily since 1929, reaching the highest point in 1953 when total production was 208,590 tons. Since 1953, production declined to 172,525 tons in 1954 and an estimated 166,850 tons in 1955, when freezing weather in the spring greatly reduced the pecan crop. Walnuts are usually the largest tree nut crop grown in the United States, followed closely by pecans, and more distantly by almonds, and filberts. In recent years, the percentage of the total crop represented by walnuts has declined slightly while percentages of almonds and filberts have risen. (Fig. 1.)

Commercial acreage of almonds, filberts, and walnuts is confined to California, Oregon, and Washington, while pecans are grown principally in the southeastern and south central portions of the country.

Practically all of the commercial acreage of almonds is in California, principally in a central belt about 700 miles long. (Fig. 2.) Between 1929 and 1955 commercial acreage of almonds increased approximately 30 percent, from 72 thousand acres to almost 94 thousand acres. During the same period production increased approximately 164 percent, from 13,500 tons in 1930 to 35,600 tons in 1955. (Fig. 3.)

Almost 90 percent of the acreage used for producing filberts is in Oregon, with most of the plantings in the Willamette Valley. The remaining acreage is located in the southwestern section of Washington. (Fig. 4.) The commercial production of filberts is the newest nut crop enterprise and increases in acreage and production have been larger percentagewise than for other nuts, although the production of filberts is still a relatively small portion of the total. Acreages of filberts rose from 2,000 acres in Oregon and 300 acres in Washington in 1929 to 23,500 and 3,000 acres respectively, in 1954. Total production for the 2 States rose from 200 tons in 1929 to over 7,000 tons in 1955, although the highest volume was 12,250 tons in 1952. (Fig. 5.)

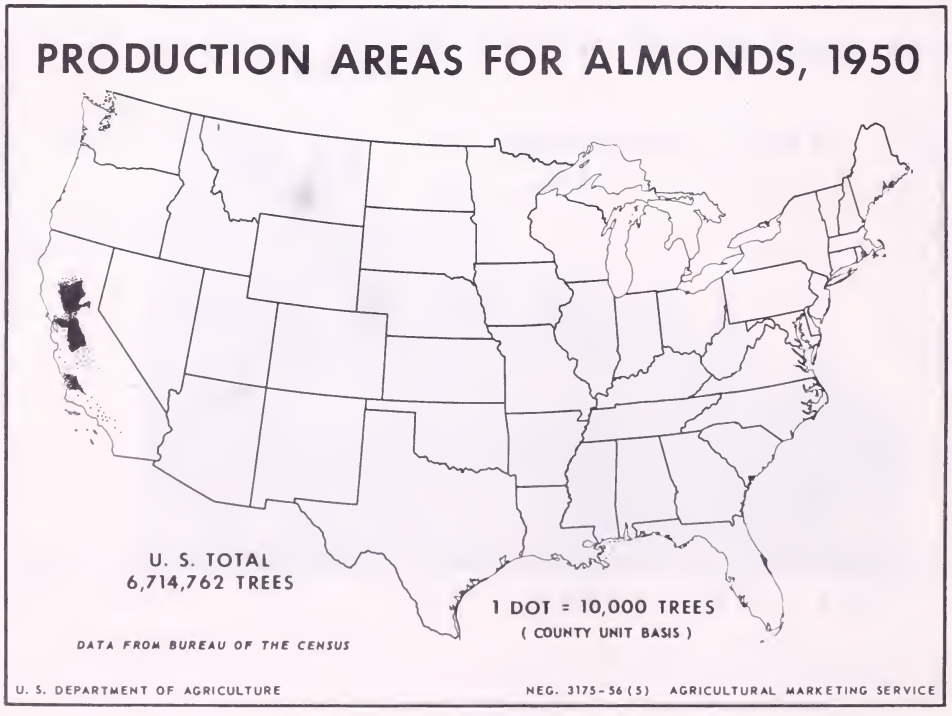

PRODUCTION AREAS FOR ALMONDS, 1950
U. S. TOTAL
6,714,762 TREES
1 DOT = 10,000 TREES
(COUNTY UNIT BASIS)
DATA FROM BUREAU OF THE CENSUS
U. S. DEPARTMENT OF AGRICULTURE
NEG. 3175-56(5) AGRICULTURAL MARKETING SERVICE

FIGURE 2

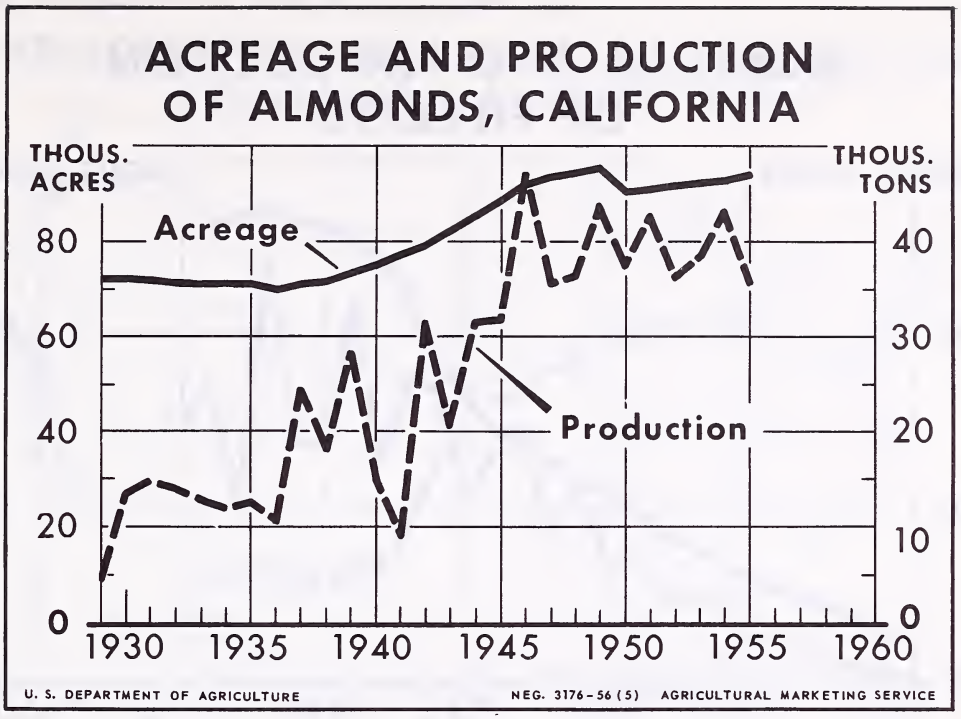


FIGURE 3

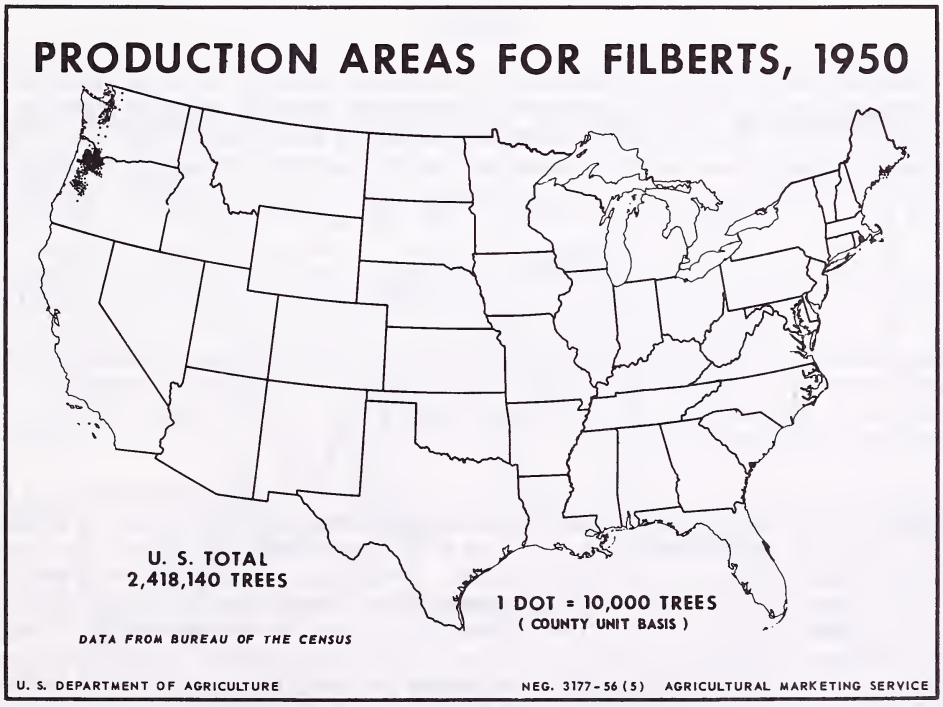

PRODUCTION AREAS FOR FILBERTS, 1950
U. S. TOTAL
2,418,140 TREES
1 DOT = 10,000 TREES
(COUNTY UNIT BASIS)
DATA FROM BUREAU OF THE CENSUS
U. S. DEPARTMENT OF AGRICULTURE
NEG. 3177-56 (5) AGRICULTURAL MARKETING SERVICE

FIGURE 4

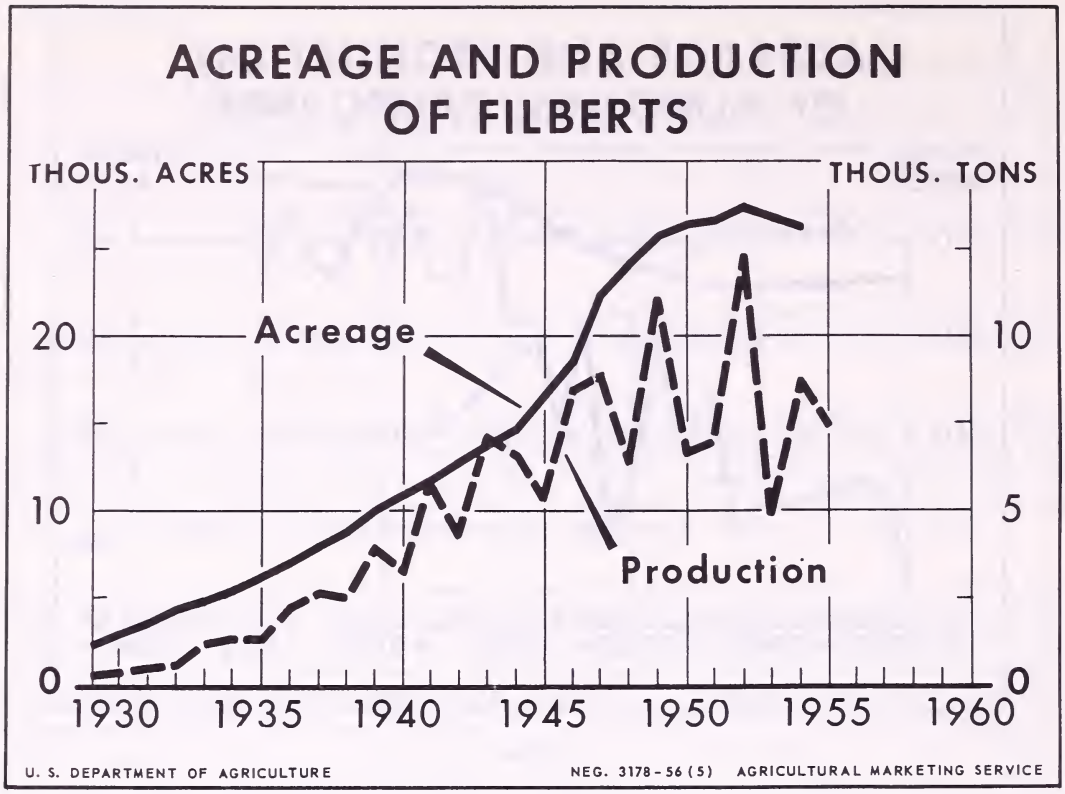


FIGURE 5

Approximately 80 percent of the domestic walnut acreage is in California, with about a quarter in southern California and the remainder in the San Joaquin and Sacramento Valleys and the coastal valleys both north and south of San Francisco. Most of the remaining domestic walnut acreage is found in the Willamette Valley of Oregon, but some walnuts are produced commercially in southwestern Washington. (Fig. 6.) Total walnut acreage rose from 107,400 acres in 1929 to 148,300 acres in 1955, an increase of approximately 38 percent. The percentage increase in walnut acreage was greater in Oregon than in California, although the actual increase was slightly more in California. Walnut acreage in California increased from 97,600 acres in 1929 to 119,800 acres in 1955, while Oregon acreage was increasing from 9,800 to 28,500 acres during the same period. The production of walnuts has increased from 43,400 tons in 1929 to 75,400 tons in 1955, approximately 74 percent. (Fig. 7.) California production usually comprises about 90 percent of the total domestic supply. In 1955, 70,000 of the 75,400 tons produced came from California.

Pecans may be grown in widely scattered areas of the United States, but those entering commercial channels are usually harvested in the Southeastern or South Central states. (Fig. 8) Since most of the pecans are wild (seedling), there are no accurate data concerning the total acres in pecan production. Production figures are probably indicative of price rather than numbers of acres of trees, since large quantities of the wild or seedling pecans may not be harvested if the prevailing price is not favorable. Total production of pecans has shown a steady trend upward with sharp variations in year-to-year production because of a marked tendency of pecan trees to produce large crops every other year. This upward trend is due to the increasing portion of the total crop originating from cultivated, improved trees. In 1929, the total crop of 26,670 tons consisted of 83 percent wild (seedling) pecans and 17 percent of improved pecans. In the rather poor nut crop year of 1955, when only 48,450 tons of pecans were harvested, approximately 24 percent came from commercial orchards. In the record pecan crop year of 1953, when 105,830

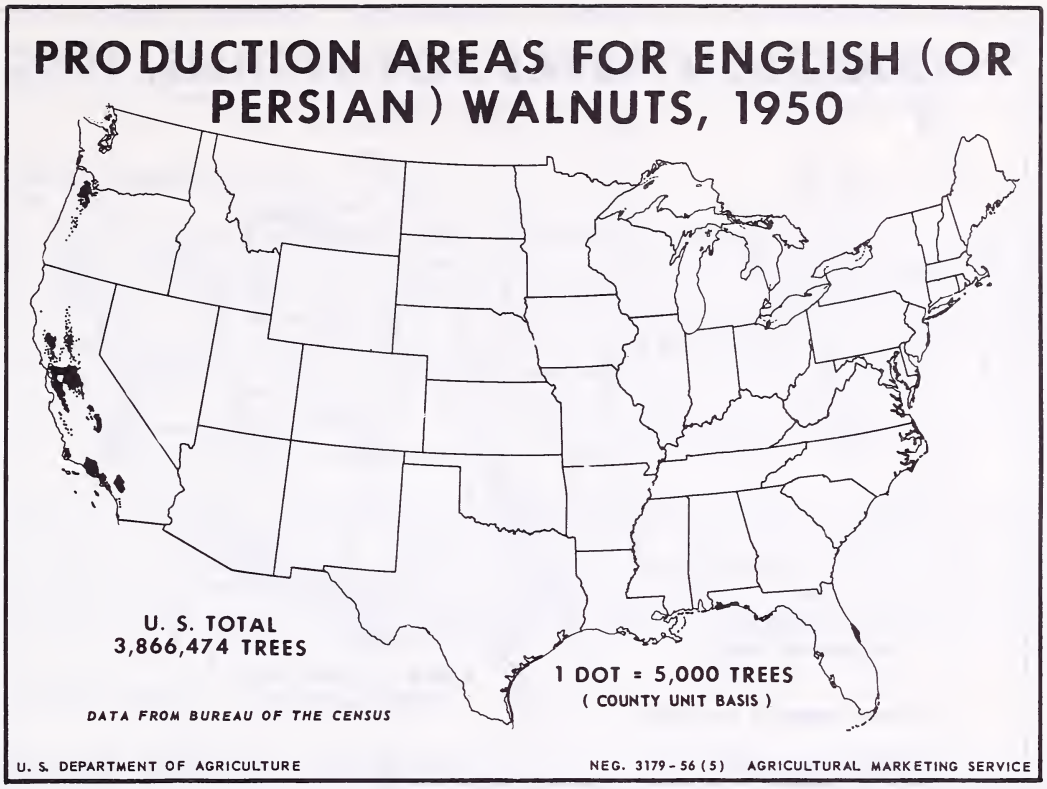

PRODUCTION AREAS FOR ENGLISH (OR PERSIAN) WALNUTS, 1950
U. S. TOTAL
3,866,474 TREES
DATA FROM BUREAU OF THE CENSUS
1 DOT = 5,000 TREES
(COUNTY UNIT BASIS)
U. S. DEPARTMENT OF AGRICULTURE
NEG. 3179-56 (5) AGRICULTURAL MARKETING SERVICE

FIGURE 6

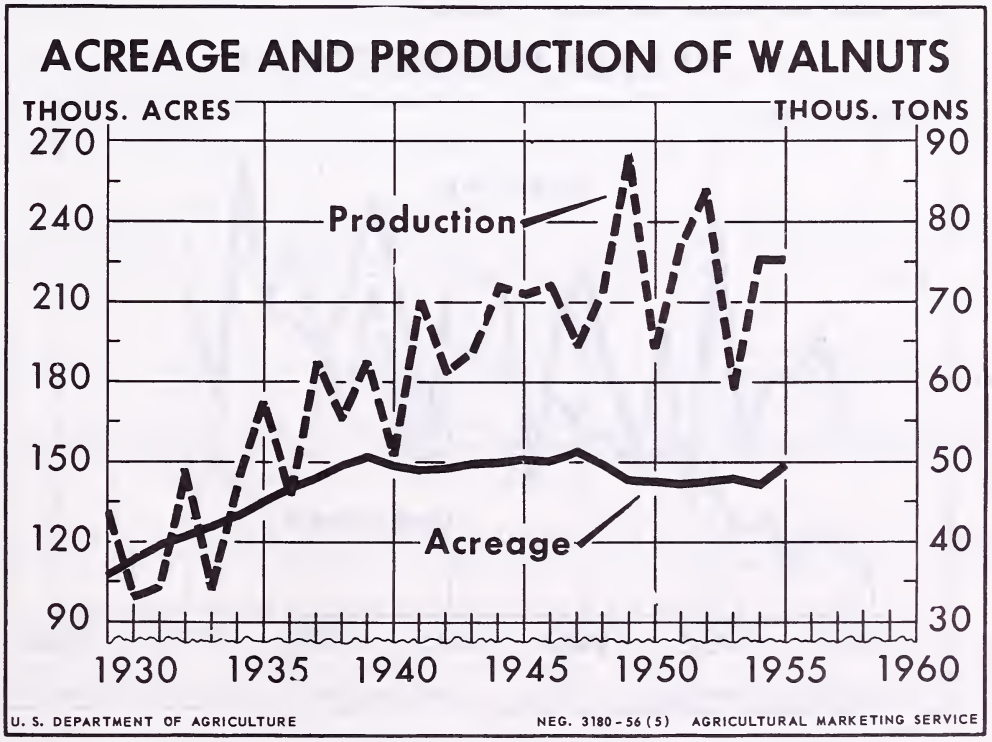


FIGURE 7

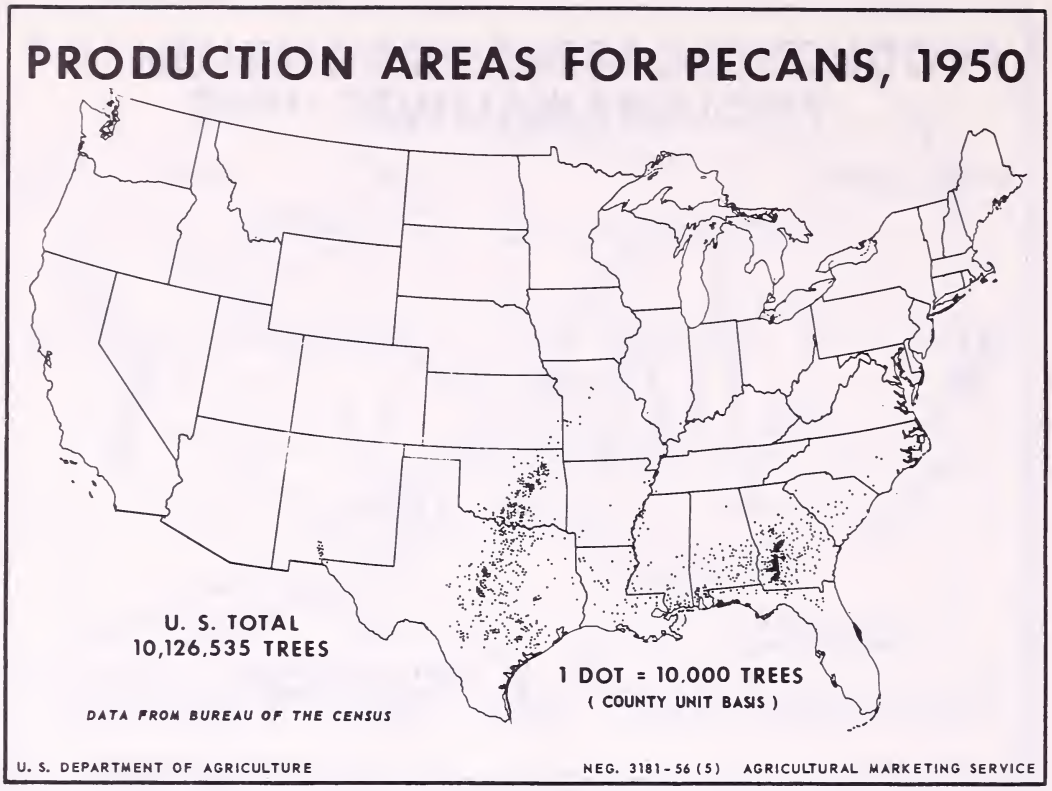

PRODUCTION AREAS FOR PECANS, 1950
U. S. TOTAL
10,126,535 TREES
DATA FROM BUREAU OF THE CENSUS
1 DOT = 10,000 TREES
(COUNTY UNIT BASIS)
U. S. DEPARTMENT OF AGRICULTURE
NEG. 3181-56 (5) AGRICULTURAL MARKETING SERVICE

FIGURE 8

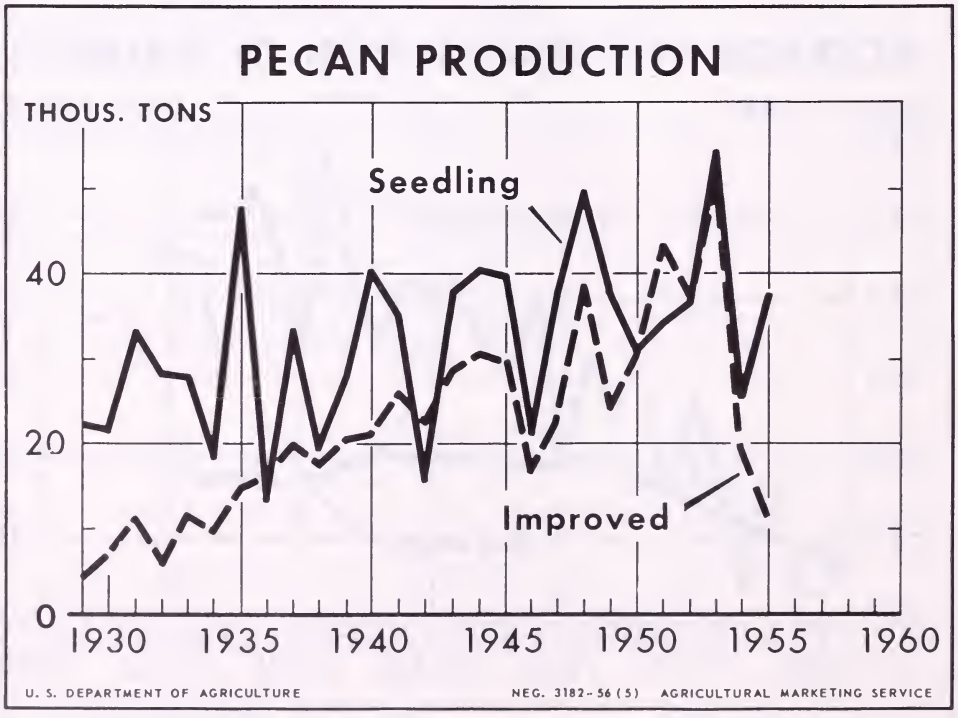


FIGURE 9

tons of pecans were harvested, approximately 49 percent of the total crop was from commercial orchards. (Figure 9). Georgia and Alabama lead in the production of improved varieties, producing, on the average, approximately 48 and 20 percent respectively. Texas, Oklahoma, and Louisiana produce most of the wild or seedling pecans, averaging 37 percent, 23 percent, and 14 percent, respectively.

Federal Marketing Programs

The marketing of domestically produced almonds, filberts, pecans, and walnuts is regulated under Federal marketing agreement and order programs, as authorized under the Agricultural Marketing Act of 1937, as amended.[2] These programs are designed to improve grower returns through the establishment of minimum quality standards and/or volume restrictions which provide for the diversion of the surplus portion of the crop to noncompetitive outlets. Because of comparatively small domestic supplies, there are no volume restrictions on the 1955-56 crop of almonds, pecans, or walnuts, provided quality standards are met. Eighty-five percent of the 1955-56 crop of merchantable filberts can be sold in-shell; the remainder must be shelled or exported.

In addition to Federal marketing agreement and order programs, the Department of Agriculture has the authority under Section 32 of Public Law 320, as amended, to assist in the removal of surpluses by purchases and by diversion and export payments. Since 1935, the Department has spent approximately 20 million dollars for the removal of tree nut surpluses, mostly in the form of export and diversion payments, although some nuts have been purchased for school lunch programs.

Foreign Production

The foreign production of almonds, filberts, and walnuts is concentrated in countries with mild, humid climates bordering the Mediterranean Sea. In most of these countries, production is not on a commercial basis, but nut bearing trees are found growing wild or in scattered plantings along hedgerows and in yards. For this reason, there are no data concerning the total acreages used for growing these nuts; but estimates of total production are available.

Italy produces the largest portion of the world supply of almonds, with Spain second and the United States third, followed by Iran, Greece, Portugal, French Morocco, and Turkey. On the average, Italy produces about 37 percent of the total supply of almonds, Spain approximately 26 percent, and the United States about 21 percent.

Over 55 percent of the world's commercial filbert crop is produced in Turkey; Italy averages approximately 24 percent, Spain 16 percent, and the United States about 6 percent. Production in other countries is scattered and negligible in world trade.

The production of walnuts is found in more countries than any of the other tree nuts, but the figures are unreliable. The United States is the leading producer of walnuts. Turkey also produces a substantial quantity but reports only the exportable surplus portion of the crop. It is estimated that the United States and Turkey produce approximately 60 percent of the world's supply of walnuts, followed by Italy and France. There is considerable production of walnuts in China, Yugoslavia, and Rumania but reliable estimates of total production in these countries are not available.

The pecan tree is a native of North America and the United States is the only producer of pecans, with the exception of an estimated average production of 5 million pounds in Mexico.

Other tree nuts which are not grown in the United States but are competitive with domestic production are cashew nuts and brazil nuts. Cashew trees grow profusely in many tropical regions but nuts are harvested mostly in India and Mozambique. Practically

[2] Marketing of pecans regulated in only 5 States: South Carolina, Georgia, Florida, Alabama, and Mississippi.

all of the processing--a rather complicated process requiring much hand labor--is done in India. The principal producer and exporter of brazil nuts is Brazil where the trees grow wild. Total harvest of both cashews and brazil nuts depends largely upon the price these nuts will bring in New York.

Imports

With the exception of the World War II period when imports of tree nuts dropped to approximately 10 percent of the 1935-39 average, the trend of tree nut imports has been upward since 1929. However, total imports have not risen as much as domestic production and the United States now produces more nuts than are imported, the reverse of the situation prior to 1931. In addition, the increase in total imports has resulted from increased use of nuts which are not produced in this country. Imports of domestic-type tree nuts have actually declined.

Tree nuts are imported into the United States both in-shell and shelled. The trend to importing a larger percentage of nuts on a shelled basis has been brought about by the rapid growth in popularity of the cashew nut, which has never been imported in-shell, and the increased proportion of imports of domestic-type tree nuts on a shelled basis. Imports of in-shell nuts in the 1954-55 season[3] totaled only 16,109 tons, compared to a high of 28,960 tons in the 1932-33 season. The 1954-55 imports of in-shell tree nuts consisted of 5,660 tons of brazil nuts, 6,776 tons of chestnuts, 3,654 tons of pistachio nuts, and 19 tons of pecans. Of these, only pecans are produced on a commercial basis in this country.

TABLE 1.--Imports of tree nuts in-shell, for specified years

Year	Almonds	Brazil	Chestnuts	Filberts	Pecans	Pistachio	Walnuts	Total
	Tons	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*
1929.....	2,393	6,714	8,472	2,233	--	513	3,490	23,815
1935-39.....	324	10,344	8,728	956	--	1,326	82	21,760
1954.....	0	5,660	6,776	0	19	3,654	0	16,109

While the imports of shelled tree nuts increased from 1929 to 1954, imports of domestic-type tree nuts--with the exception of filberts--have either decreased or remained about steady. The rise in total imports of shelled tree nuts has been due entirely to the increasing popularity of cashew nuts and the great increase in their importation. During the period 1929 to 1954, total imports of shelled tree nuts increased from 22,938 tons to 38,218 tons, while imports of cashews rose from 1,035 tons to 27,925 tons. In the 1954-55 season cashew nuts comprised approximately 73 percent of the total imports of shelled tree nuts.

TABLE 2.--Imports of shelled tree nuts for specified years

Year	Almonds	Brazil	Cashews	Filberts	Pecans	Pignolias	Pistachio	Walnuts	Total
	Tons	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*
1929.....	9,291	1,671	1,035	2,137	59	237	84	8,424	22,938
1935-39.....	2,633	4,547	12,889	1,095	77	175	223	2,181	23,820
1954.....	661	2,335	27,925	3,321	194	190	122	3,470	38,218

Unpublished data--F.A.S.

[3] Beginning October 1954. Source: Foreign Agricultural Service, unpublished data.

Practically all the almonds imported into the United States come from Spain or Italy. Since 1951, the majority has come from Spain, although before that time Italy was the chief supplier. All of these imports are on a shelled basis and are sold primarily to the confectionery trade, which has demanded a larger quantity of small nuts than are produced domestically.

Filberts are imported almost exclusively from Turkey although a few tons are imported from Spain and Italy. Since World War II, there has been a steady decline in the amount imported in the shell and none was imported on this basis in 1954-55. Imports of shelled filberts have fluctuated from year to year, more or less reflecting foreign supplies. Practically all of the imported filberts are sold to the nut salting trade to be used in mixtures of salted nuts.

Walnuts are imported from many foreign countries, but in the last 3 years about 50 percent of our imports have come from France. During the last 2 years all imports have been on a shelled basis. Supplies are also obtained from Turkey, Iran, Italy, India, and other countries whose relative portion of the market varies from year to year. Most of the imported walnuts are smaller and of generally poorer quality than domestic walnuts and are diverted to the confectionery and baking industries.

All of the imported cashew nuts are shelled, and approximately 90 percent are shipped from India. Practically all of the cashews are used by the nut salting trade. Brazil nuts are imported almost exclusively from Brazil, though a few are shipped from Bolivia and Peru. In-shell brazil nuts are usually sold to the tree nut mix trade and packaged for sale through grocery stores. The shelled brazil nuts are used mostly by nut salters and the confectionery trade.

Tariffs

The commercial production of edible tree nuts in the United States has been fostered partially by tariffs on imports of all tree nuts from other countries. Tariffs on domestic-type tree nuts are higher than on other types of nuts, and in years when imports are likely to interfere with Federal marketing programs, additional import fees and quotas may be imposed. Tariffs in effect on the principal tree nuts imported into the United States are shown in the following table.

TABLE 3.--Import rates of duty, edible tree nuts, United States, 1956

Kind of nut	Tariff rate per pound	
	Not shelled	Shelled
	Cents	*Cents*
Almonds	5.5	16.5
Filberts	5.0	8.0
Pecans	5.0	10.0
Walnuts	5.0	15.0
Brazil nuts	0.375	1.125
Cashews	1.5	1.5

Edible Tree Nuts, Report to the President under Section 22 of the Agricultural Adjustment Act as amended, United States Tariff Commission, September 1954.

Outlook for Supplies

Domestic Supplies. --Like most of the other tree crops, the current supply of tree nuts is relatively unaffected by current economic forces. The current demand for and prices of tree nuts, however, has a great deal to do with supplies that can be expected in

the 1960's, just as increased production in the 1930's resulted from plantings made during the 1921-28 period when prices were favorable to nut growers. The increased average production in the early 1950's resulted from plantings made during the high price period of World War II.

Expected supplies of domestic tree nuts for the next 4 or 5 years must come from trees which are bearing or near bearing age. Accurate data on the number of acres of bearing and nonbearing trees are available annually only for almonds and walnuts in California. In 1954, the latest year for which data are presently available, there were approximately 93,000 acres of bearing almond trees compared to the record high of over 95,000 acres in 1949. Nonbearing acreage was estimated to be only about 9,000 acres, only 39 percent of nonbearing acreage in the recent high year of 1941 when total nonbearing acreage was almost 23,000 acres, and only 25 percent of the record high of almost 36,000 acres in 1921 when the industry was rapidly expanding. There were fewer almond trees planted during the 1952-54 period than during any similar period since 1930. Total bearing and nonbearing acreage dropped 11 percent from a high of almost 114,000 acres in 1949 to an estimated 101,000 acres in 1954. These figures indicate that there will be no major expansion in the almond industry in the immediate future, but only slight increases in production, due to increased age of current acreage. However, prices for the 1955-56 crop are at record high levels and if these prices are maintained for 2 or 3 crop seasons, an increase in almond tree plantings can be expected, resulting in increased production in the late 1960's.

The total acreage of walnuts in 1954 in California was also lower than in previous years. Bearing acreage was estimated at 113,000 acres, down 13 percent from a high of 130,000 acres in 1939, and the 23,000 acres of nonbearing trees were only 42 percent of the record high of 55,000 acres in 1927. Bearing and nonbearing walnut trees totaled 136,000 acres in 1954 compared with 153,000 acres in 1936, a decrease of 11 percent. New plantings of walnut trees in 1954 were less than in any year since 1940. (Appendix table 22)

While total acres of both almonds and walnuts have declined in recent years, total production has increased due to use of better land for plantings, increased size of trees, an increased percentage of heavier bearing varieties, and better cultural methods. More efficient marketing practices have also resulted in a larger percentage of the crop being marketed. Total production of walnuts would be expected to increase during the next few years even if there were no new plantings because of increasing age and yields of presently bearing and nonbearing trees. Net total production will not increase as rapidly as would be expected, however, due to removal of orchards in southern California. During the period 1940-1955, total walnut acreage in northern California increased about one-half while acreage in southern California decreased about two-thirds. With the continued influx of people into southern California and the resulting press of population on the available land, the decline in walnut acreage in the south is expected to continue. However, prices to growers for the 1955 crop are reported to be the highest in history and sufficient optimism among growers concerning future prices will undoubtedly lead to increased plantings in northern California. By 1970 the shift of walnut production from southern to northern California is expected to be virtually completed.

Although data are not available concerning the acreage or number of pecan trees, indications are that increased plantings of pecan trees have been made. The production of pecans seems to be spreading to States not currently included in crop estimates and there is an increasing percentage of improved pecans in the total crop. New plantings of pecans have been made in Texas and Oklahoma, and also in New Mexico, a State which, to date, has not been included in national pecan production figures. Smaller crops due to weather in 1954 and 1955 and record prices during those years indicate that pecan production can be expected to increase more than other nut crops.

During the period 1950-1954, the total number of filbert trees reported in the Census of Agriculture declined approximately 30 percent in Oregon and over 37 percent in Washington. In both States, the largest declines have been in the number of trees not of bearing

age. Trees not of bearing age declined approximately 86 percent in both States while trees of bearing age declined approximately 14 percent in Oregon and 27 percent in Washington. In 1954, only about half as many farms reported growing filberts as in 1950. The sharp decline in the number of nonbearing trees accompanied by a decline in trees of bearing age indicates that filbert production in the Northwest will continue to decline for the next few years unless prices in excess of 1955 level can be obtained.

Foreign Supplies. --World supplies of domestic-type tree nuts will be greatly reduced in the 1956 crop year due to record freezes in southern Europe in February and March 1956. Early estimates indicate that there will be a reduction in the crop of almonds in Italy and Spain and some damage to the walnut crop in France. The severity of the damage to the 1956 crop will be reflected in prices for these nuts in the fall of 1956. The extent of the damage to the current crop and the resulting prices will have much to do with growers' decisions to increase plantings in the United States.

In making decisions to increase or decrease acreage of tree nuts, growers will take into consideration not only foreign supplies, but United States tariffs to protect them against competition from those supplies. Domestic-type tree nuts have been protected from foreign imports by tariffs since the earliest tariff acts. The high tariffs on almonds and walnuts imposed by the Act of 1922 did much to encourage the production of these nuts in the United States. Filbert production was partially fostered by the increased tariff on filberts imposed by the Act of 1930. The 1930 tariff rates are still in effect on almonds and walnuts while the tariff on filberts was reduced in 1939. In view of the current price level these tariffs do not afford the same protection as when instituted.

DISPOSITION

Domestic Consumption

The total consumption of tree nuts trended upward from 1929 to 1948, despite dips in consumption in 1933-34 and again in 1942-43. During the period 1929 to 1948, per capita consumption increased 113 percent, from 0.8 pound to 1.7 pounds, shelled basis. From 1949 to 1953 per capita disappearance leveled off at 1.6 pounds and then dipped to 1.4 pounds in 1954.

The per capita disappearance of the individual kinds of nuts varies from year to year depending on the relative supplies of each kind. For example, if walnuts are plentiful relative to almonds, filberts, and pecans, a larger proportion of walnuts is included in the in-shell mixtures sold primarily through retail food stores. Similarly, if filberts or almonds are plentiful relative to other tree nuts, more of them will be included in the in-shell mixtures as well as in the shelled, salted mixtures.

While the total consumption and per capita consumption of nuts has shown a rather steady upward trend, the per capita consumption of domestic-type tree nuts has remained about steady and that of other nuts has increased. Most of the increase in total consumption of tree nuts has been due to the increased use of the cashew nut, which, as previously noted, comprises approximately 73 percent of our total imports of shelled nuts.

TABLE 4.--Per capita disappearance of selected types of tree nuts, United States

Year	Almonds	Filberts	Pecans	Walnuts	Other[1]	Total
Average						
1929-33	0.16	0.05	0.20	0.35	0.25	1.02
1935-39	.17	.04	.26	.34	.45	1.26
1946-50	.30	.09	.31	.37	.48	1.55
1954	.22	.08	.20	.37	.56	1.43

[1] Includes brazil nuts, cashews, chestnuts, pignolia, pistache, and miscellaneous tree nuts. Source: Supplement for 1954 to Consumption of Food in the United States, 1909-1952, U. S. Department of Agriculture, September 1955.

Channels of Distribution

Domestic tree nuts are sold either shelled or in-shell but the proportion of the crop sold on a shelled basis has been increasing steadily in recent years. In-shell nuts are sold almost exclusively for home consumption in straight packs or mixtures, principally during the holiday season in November and December. Shelled nuts are sold to candy manufacturers, the salting trade, bakers, households (unsalted), ice cream manufacturers, and the manufacturers of nut syrups and pastes.

Candy manufacturers are the main outlet for shelled almonds; salters use most of the filberts; while most of the shelled pecans and walnuts are used by bakers and for home consumption. As a whole, confectioners are the most important outlet for shelled domestic tree nuts, using approximately 33 percent of the total production of shelled nuts. The baking industry uses about 30 percent, households use 17 percent and the salted-nut trade uses about 10 percent. Ice cream manufacturers and manufacturers of nut pastes and syrups use approximately 7 and 3 percent respectively.

TABLE 5.--Shelled tree nuts--estimated sales through various outlets, by kinds, United States, 3-year average October 1, 1950-September 30, 1952

Outlet	Almonds		Filberts		Pecans		Walnuts		Total	
	Million pounds	*Per-cent*	*Million pounds*	*Per-cent*	*Million pounds*	*Per-cent*	*Million pounds*	*Per-cent*	*Million pounds*	*Per-cent*
Confectionery.....	25	64	2	28.5	8	20	3	11	38	33
Salting.....	5	13	3	43	3	7	--	--	11	10
Baking.....	3	8	2	28.5	18	44	11	39	34	30
Households (unsalted).....	4	10	--	--	5	12	11	39	20	17
Ice cream.....	2	5	--	--	5	12	1	4	8	7
Other.....	--	--	--	--	2	5	2	7	4	3
Total.....	39	100	7	100	41	100	28	100	115	100

Edible Tree Nuts, Report to the President under Section 22 of the Agricultural Adjustment Act as Amended, U. S. Tariff Commission, September 1954.

Almonds

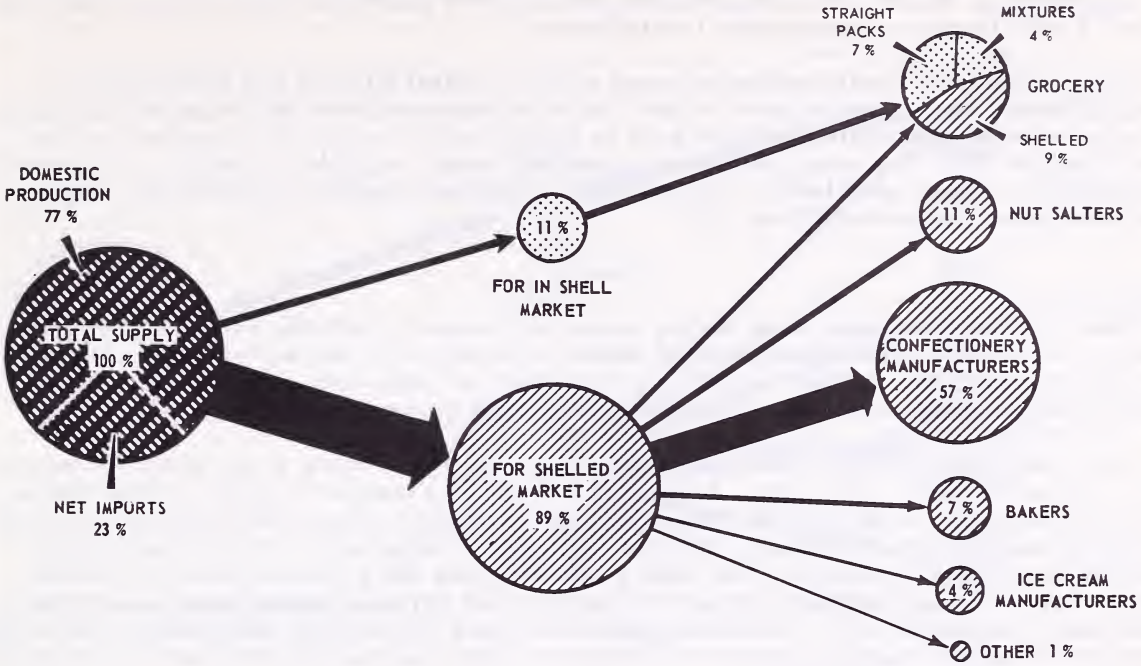
Approximately 70 percent of the California almond crop is marketed through the California Almond Growers Exchange; the remaining 30 percent is marketed through independent packers and shellers. In recent years, approximately 90 percent of the crop has been marketed on a shelled basis.

Confectioners are the largest users of almonds, purchasing their total supply on a shelled basis. During the period 1950-52, confectioners used approximately 64 percent of the shelled almonds marketed. Nut salters used about 13 percent, households 10 percent, and the baking industry 8 percent. Ice cream manufacturers used 5 percent. Practically all of the almonds sold on an in-shell basis are handled by the in-shell tree nut mix firms who package them with other nuts for distribution through grocery stores (fig. 10).

Filberts

The marketing of filberts is less centralized than the marketing of the other important tree nuts grown on the West Coast. Filberts are handled by cooperative grower organizations, independent grower-packers, and packers who might be classified as independent or cash buyers. In recent years, 3 cooperatives and 4 large independent packers have handled over 80 percent of the filbert crop. The balance of the

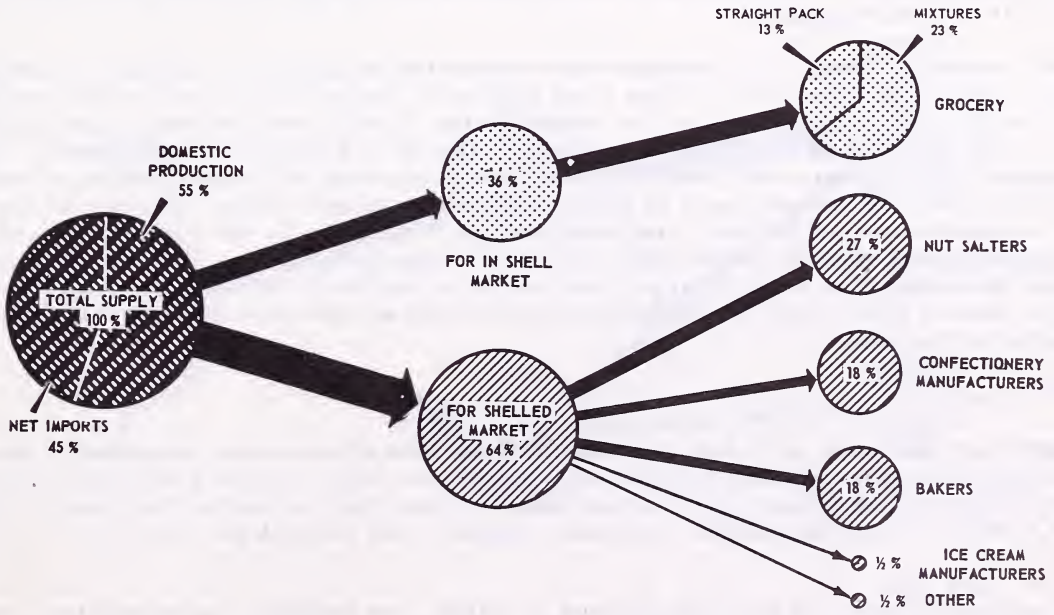
ESTIMATED DISTRIBUTION OF ALMONDS, 1950-52



U.S. DEPARTMENT OF AGRICULTURE NEG. 3183-56(5) AGRICULTURAL MARKETING SERVICE

FIGURE 10

ESTIMATED DISTRIBUTION OF FILBERTS, 1950-52



U.S. DEPARTMENT OF AGRICULTURE NEG. 3184-56(5) AGRICULTURAL MARKETING SERVICE

FIGURE 11

production is distributed through approximately 15 firms, mostly small grower-packers. Filberts are marketed principally in-shell, with excess supplies being diverted to export and shelling. Most of the cooperatives and packers distribute their filberts through brokers in the larger centers of the United States.

The tree nut mix trade purchases most of the in-shell filberts for distribution through grocery stores while most of the shelled filberts are sold to the industrial trade. The proportion of the shelled filberts sold on the domestic market through the various outlets for the 1950-52 average period was approximately as follows: salters, 43 percent; confectioners, 28 percent; bakers, 28 percent; ice cream makers, households, and all other uses about one percent (fig. 11).

Pecans

Since pecans are produced in widely scattered areas in both the wild and cultivated state, grower cooperatives have been of minor importance in marketing the pecan crop. Marketing methods for pecans are more varied than for any other domestic nut crop, ranging from country assemblers to highly integrated grower-marketing enterprises.

The trend to marketing nuts on a shelled basis has been more pronounced for pecans than for other domestic tree nuts. According to figures assembled by the United States Tariff Commission, in the period 1950-1952 approximately 75 percent of the pecan crop was distributed on a shelled basis. In-shell nuts went exclusively for distribution primarily through grocery stores. The baking industry was the principal user of shelled pecans, utilizing approximately 44 percent during that period. Confectioners were the second most important user, consuming approximately 20 percent, followed by household users and ice cream manufacturers at 12 percent each, the salting trade at 7 percent and other users at 5 percent (fig. 12).

Walnuts

Approximately 75 to 80 percent of the English walnuts crop is marketed by the California Walnut Growers Exchange, which maintains extensive processing and marketing facilities. The remainder of the California crop is handled through independent growers, shellers, and packers. The Northwest Nut Growers Association markets more than 50 percent of the northwest crop.

Until recently, most of the walnuts were marketed in-shell, but efforts are being made to increase the proportion of the crop sold on a shelled basis. During the period 1950-52, according to estimates of the United States Tariff Commission, approximately 53 percent of the crop was sold through grocery stores in packaged in-shell nuts. The remaining 47 percent was sold shelled. The baking industry and household use accounted for approximately 39 percent each of the shelled nuts; confectioners, 11 percent; ice cream manufacturers, 4 percent; and other users, 7 percent. In the 1950-52 period, negligible quantities of walnuts were sold to the nut salting trade. (Fig. 13.) Present indications are, however, that a much larger percentage of the total 1955 walnut crop is being sold on a shelled basis, and the foregoing figures may not be representative of the present distribution of walnuts.

Exports

Exports of domestic tree nuts from the United States have never exceeded 5 percent of the total production, and the amount exported varies from year to year depending on domestic supplies and prices. Most of our exports have been on an in-shell basis, with walnuts being the most important. Almonds comprise the largest portion of the shelled exports.

Almonds are exported both shelled and in-shell. Our primary customer for in-shell nuts is Canada. Switzerland, the Netherlands, Belgium-Luxembourg, and Canada are the major purchasers of shelled almonds. In the 1954-55 season, the United States exported

ESTIMATED DISTRIBUTION OF PECANS, 1950-52

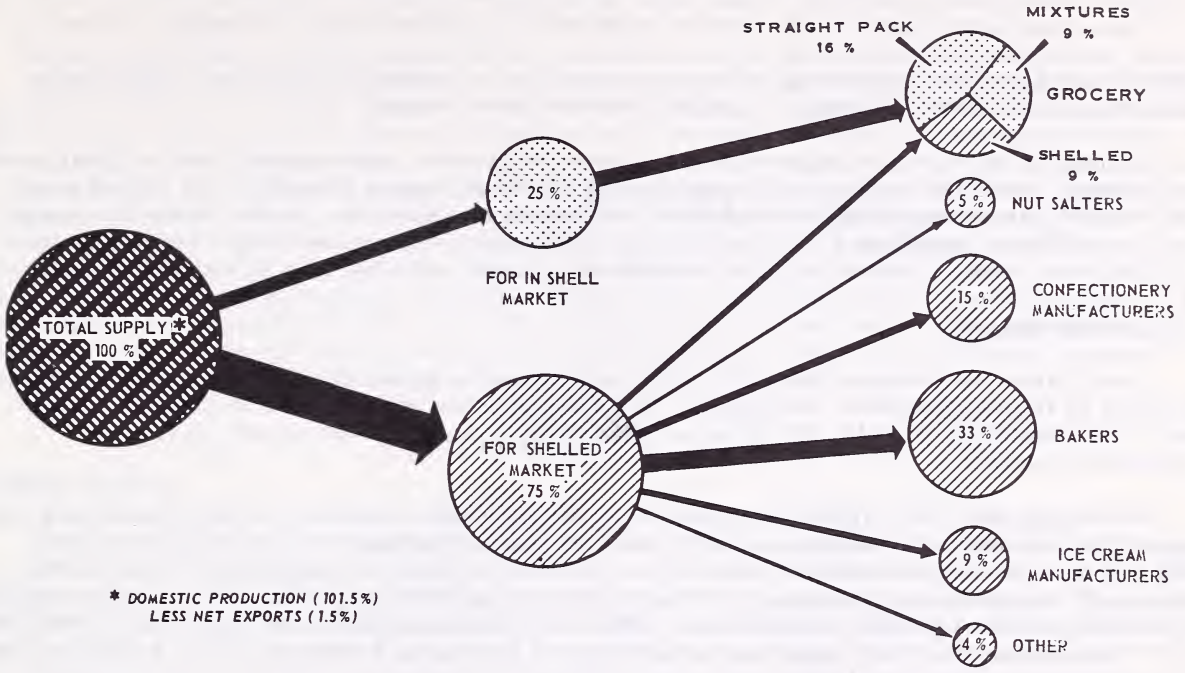


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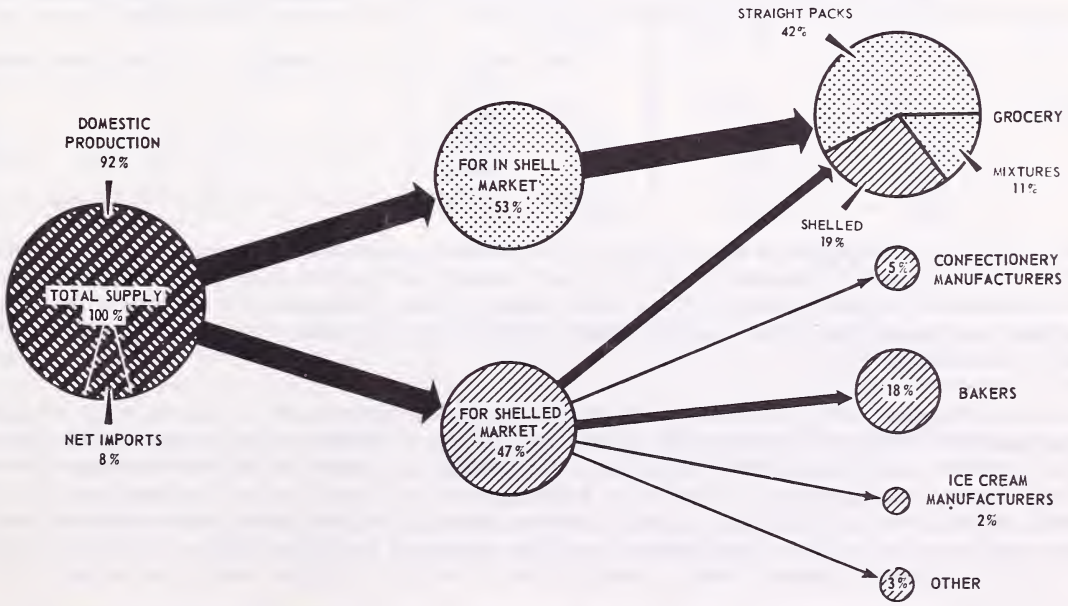
FIGURE 12

ESTIMATED DISTRIBUTION OF WALNUTS, 1950-52



U. S. DEPARTMENT OF AGRICULTURE NEG. 3186-56(5) AGRICULTURAL MARKETING SERVICE

FIGURE 13

2,907 tons of shelled almonds, one-third of which went to Switzerland, and 512 tons of in-shell almonds, 77 percent of which were purchased by Canada.

Cuba purchases most of the filberts exported by this country, all on an in-shell basis, averaging approximately 50 percent of our total filbert exports. However, in the 1954-55 season when exports of filberts were at a record high of 934 tons, large quantities were also sent to Sweden, Canada, and the Netherlands.

Canada is by far the largest customer for our pecans, both shelled and in-shell, and for walnuts, which are shipped predominantly in-shell. Large quantities of walnuts are also sent to the United Kingdom and western European countries. In the 1954-55 season, the United States exported 4,970 tons of in-shell walnuts compared with 264 tons of in-shell pecans, and 60 tons of shelled walnuts compared with 316 tons of shelled pecans.

Outlook for Demand

Long range supplies of domestic tree nuts depend a great deal upon producers' appraisals of future economic conditions. The consumption of tree nuts is closely associated with population growth, the general price level, and the amount of consumer disposable income.

Assuming that per capita consumption of all tree nuts remained at approximately the same level, the present supplies of tree nuts would be inadequate to satisfy demand in only a few years. The Bureau of the Census estimates that the population of the United States will increase approximately 30 percent between 1955 and 1975, assuming the 1950-53 fertility levels remain constant until 1965, then decline linearly to "prewar" levels by 1975.[4] Assuming that per capita disappearance of tree nuts remained at the 1954 level of 1.4 pounds, the following table shows the estimated supplies of all tree nuts (shelled basis) needed to satisfy the expected demand.

TABLE 6.--Population projections and resulting tree nut consumption (shelled basis), assuming 1954 per capita consumption

Year	Population	Per capita consumption	Quantity of tree nuts needed
	Millions	*Pounds*	*Million pounds*
1960	177.8	1.4	248.9
1965	190.3	1.4	266.4
1970	203.0	1.4	284.2
1975	214.6	1.4	300.5

Assuming no changes in the general price level, population increases alone should result in much greater quantities of tree nuts being demanded than are currently produced. However, if the general price level and personal disposable incomes increase, the per capita consumption of so-called luxury products, including tree nuts, would be expected to rise also.

At the present time, the bulk of the tree nuts are consumed in manufactured products such as confectionery, baked goods, and ice cream. Trends in consumption of these products which incorporate tree nuts are not available, but it is known that the per capita consumption of confectionery items has remained about stable at 17 pounds per person [5] since World War II, and the per capita consumption of baked goods has followed the same general pattern. However, data based on 1947 incomes indicate that as family incomes rise, consumption of confectionery, desserts, and baked goods tend to rise until an

[4] Current Population Reports, Series B, page 25, No. 123, U. S. Department of Commerce, October 20, 1955.
[5] Business Information Service, U. S. Department of Commerce, August 1954.

average income of $3,000 to $3,999 is reached, at which point family consumption remains about the same or declines slightly. It is expected that increasing population and incomes will result in an increased demand for tree nuts even though present per capita consumption patterns remain unchanged.

In the past few years, however, there has been a change in the pattern of foods purchased as well as a change in the forms in which they are purchased. More services are now incorporated in the products offered for sale in retail stores. In keeping with this trend, more tree nuts are now offered for sale shelled for use in the home either for out-of-hand eating or for use in preparation of other foods. The tree nut industry probably lagged behind other food industries in responding to the packaged-convenience trend, partly because of the technical difficulties in keeping the nut kernels fresh and attractive when displayed at the retail level. Although problems still exist concerning the color, flavor, texture, and packaging of shelled nuts, many problems have been overcome, and some increased consumption of nuts can be expected from improved merchandising methods and increased consumer education concerning the use of nuts in main course dishes as well as in desserts and confections.

PRICES

Grower Prices

Prices received by farmers for almonds, filberts, pecans, and walnuts are affected by the size of the domestic crop, the general price level, and by volumes of imports and exports. Prices of the individual kinds of tree nuts vary relative to each other. During the period 1935-39, the average grower price for almonds was $285 per ton, compared with $240 for filberts, $184 for pecans, and $198 for walnuts. During the 1950-54 period, the average prices had risen to $491 for almonds, $333 for filberts, $459 for pecans, and $394 for walnuts. Grower prices for all tree nuts were at peak levels in 1955 (table 7). The relationship of prices to production is shown in figures 14-17.

Table 7.--Five-year average grower prices for domestic tree nuts, selected periods, compared with 1955 prices

Tree nut	Average price per ton			
	1935-39	1945-49	1950-54	1955
	Dollars	*Dollars*	*Dollars*	*Dollars*
Almonds	285	503	491	800
Filberts	240	333	333	440
Pecans	184	446	459	628
Walnuts	198	442	394	540

During the period 1929 to 1940, prices received by farmers for edible tree nuts fluctuated from year to year but followed rather closely the pattern of prices received for all crops[6] and for peanuts. Prices began to rise in 1940, rose rapidly in 1941 and 1942 and finally in October of 1943 the Office of Price Administration placed all edible tree nuts under price control. Price controls were removed in May 1946, and, with the exception of prices for pecans, edible tree nut prices have fallen since that time. Indexes of prices for almonds, filberts, and walnuts on a 1935-39 base were below the index of prices received for all crops in every year during the 1946-54 period, while prices for pecans have been above the average for all crops in only 2 years, 1950 and 1954. Grower prices for filberts in 1954 were 33 percent and for almonds were 75 percent above the 1935-39 average compared with a 147 percent increase in prices received for all crops.

[6] All crops include food grains, hay, cotton, tobacco, oil-bearing crops, fruits, commercial vegetables for fresh market, potatoes, sweetpotatoes, and all edible beans.

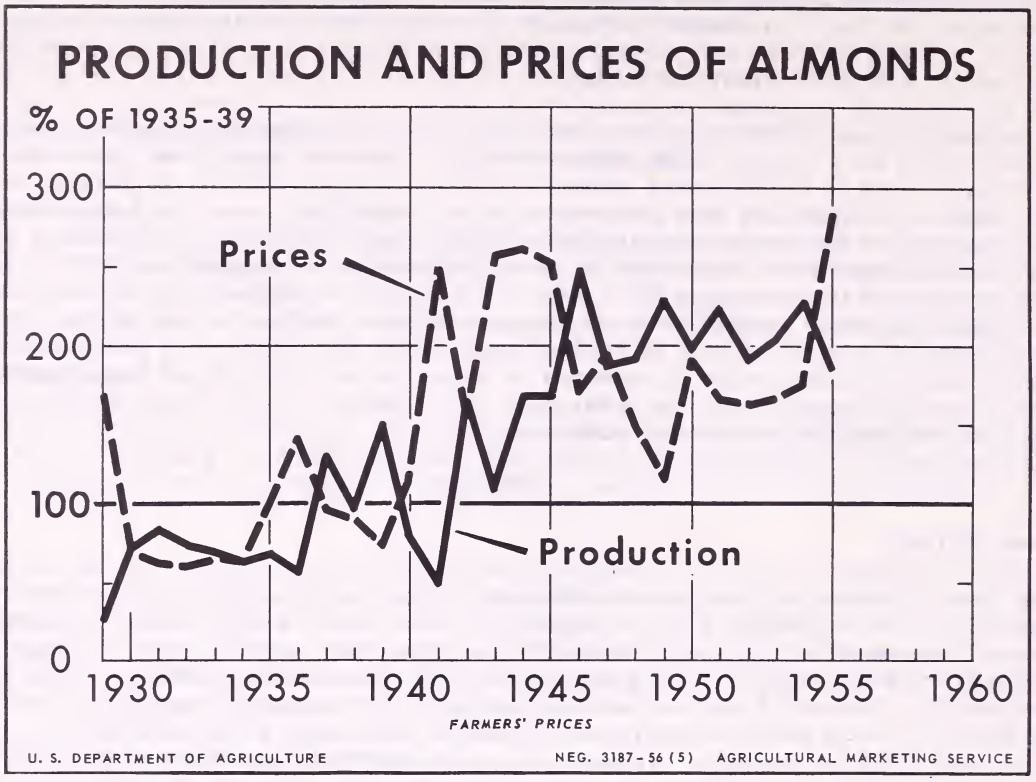


FIGURE 14

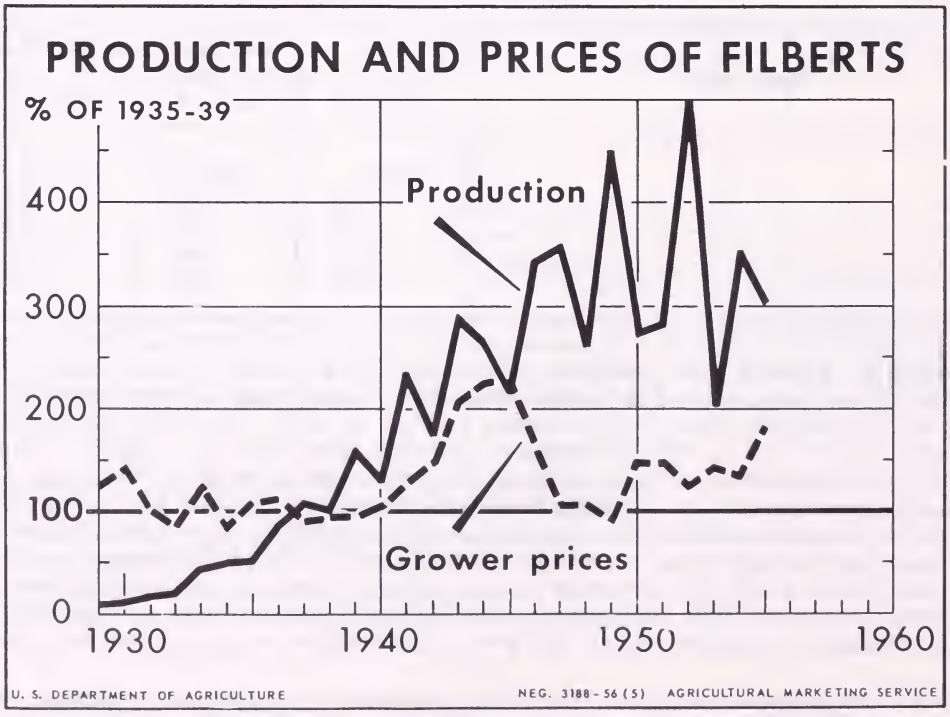


FIGURE 15

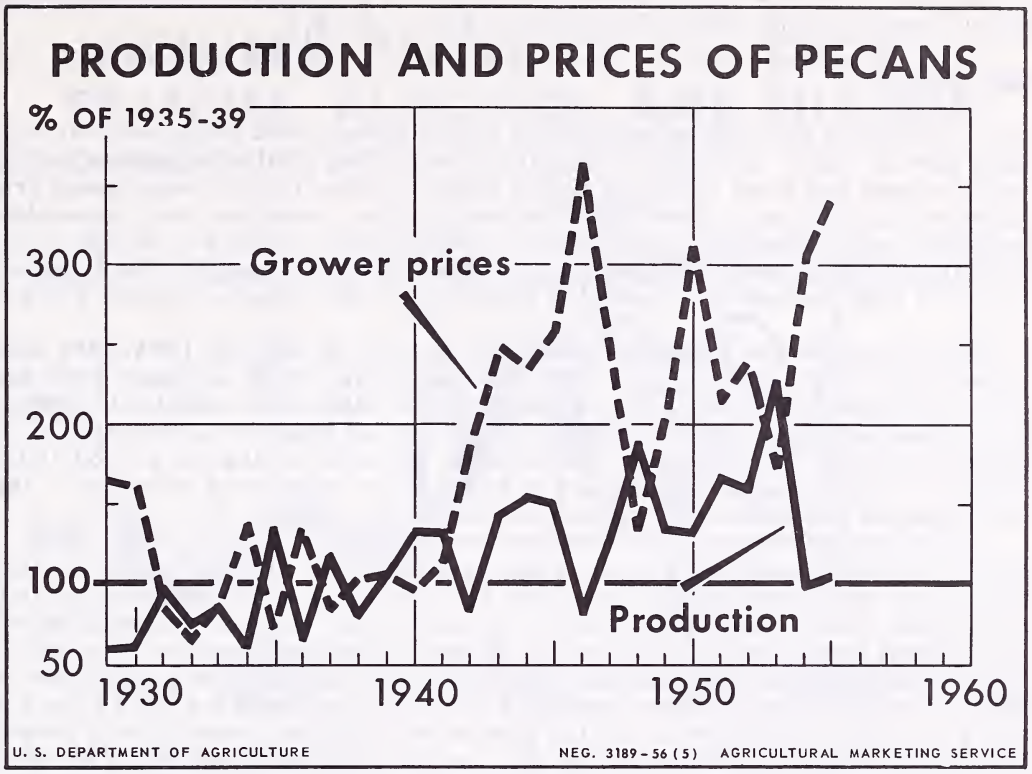


FIGURE 16

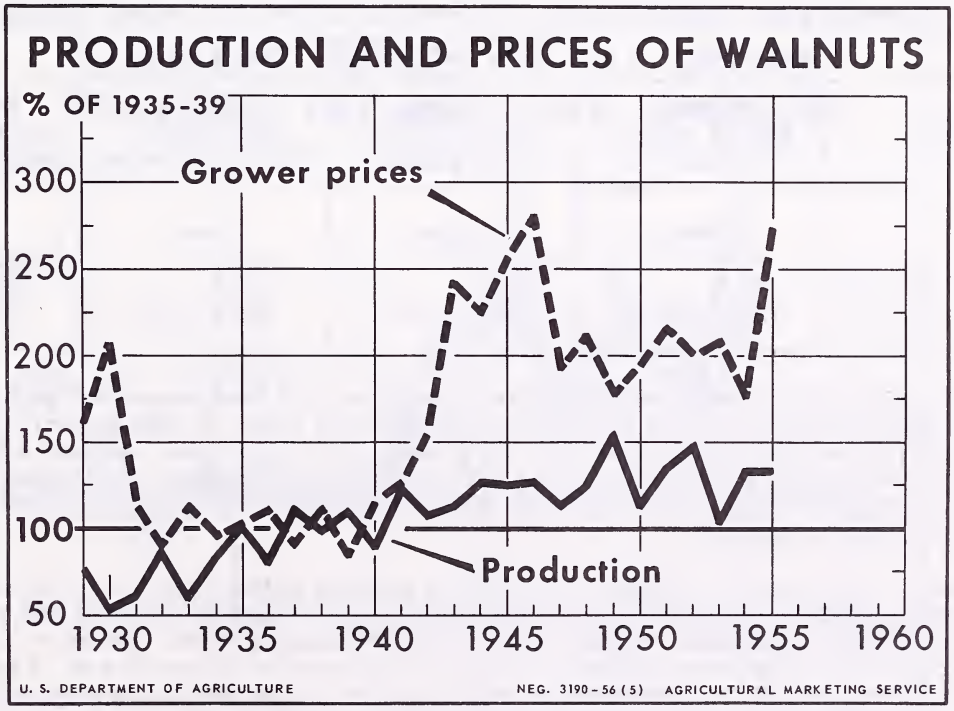


FIGURE 17

During this same period, prices received by growers of peanuts rose steadily and in 1954 were 262 percent above the 1935-39 average. (Figs. 18-19.)

Wholesale Prices

New York City is the leading market for both domestic and imported tree nuts and the largest port of entry. Limited information concerning wholesale prices for typical grades of tree nuts has been collected by the United States Tariff Commission from various importers and brokers in New York. Although these quotations are incomplete and in some instances may not be the actual prices at which lots of nuts are bought or sold, they do indicate the trend of wholesale prices for domestic nuts. Roughly, the trend of wholesale prices for both shelled and unshelled nuts follows the trend of grower prices.

The average prices for in-shell pecans and walnuts during the 1934-1954 period were about the same at 27.8 cents and 28.4 cents respectively, while almonds were higher at 30.3 cents and filberts lower at 24.2 cents per pound. However, within this period, there were considerable fluctuations in prices of one nut relative to the others. The average price of filberts was lowered considerably, because during the period 1930-37 imported filberts were of prime importance in the market and prices were lower than would have been expected had domestic filberts dominated the market.

Prices for shelled nuts are a more important indicator of price trends to the producer since an ever increasing portion of the total nut crop is being marketed in the form of shelled meats. During the 1934-1955 period, prices for shelled pecans (550 medium halves per pound) rose from 54 cents to $1.50 per pound and averaged 77 cents per pound. Prices for shelled walnuts and almonds averaged 62.8 cents and 64.6 cents per pound, respectively, while shelled filberts averaged 49 cents per pound for the 22 year period. Wholesale prices for all domestic shelled nuts except filberts were at peak levels in 1955. October 1955 prices for shelled pecans, walnuts and almonds were $1.50, 95 cents and 98 cents per pound, respectively--the highest prices ever recorded--while the price for filberts was 77 cents per pound, the highest price since 1943. (Table 8.)

TABLE 8.--New York price quotations by primary distributors for typical grades of shelled tree nuts, per pound

Period	Pecans, medium halves 550 per lb.	Walnuts, first quality light pieces	Almonds, non-pariel 23-25 per ounce	Filberts, Turkish Reg. 30-35 per ounce
	Cents	*Cents*	*Cents*	*Cents*
1935-39.....	42.0	34.6	43.0	31.0
1945-49.....	89.8	76.6	65.8	45.0
1955.....	150.0 (Oct.)	95.0 (Oct.)	98.0 (Nov.)	77.0 (Nov.)

While farm prices and wholesale prices for tree nuts tend to move together, there is considerable variation in price movements between the kinds of nuts as well as between the farm price and wholesale prices for each kind. There are also marked differences between the wholesale prices of in-shell and shelled nuts, probably reflecting the importance of imported nuts on the market, differences in shell-out percentages and differences in shelling techniques.

Growers' prices for almonds increased 72 percent between the 1935-39 and 1950-54 periods while wholesale prices of in-shell almonds increased 62 percent and price of shelled meats increased only 56 percent. During the same period, growers' prices for filberts increased 39 percent, compared with 81 percent for in-shell and 74 percent for shelled filberts. Imports of shelled almonds and filberts probably were a factor in the smaller percentage increases in the wholesale prices of the nut meats.

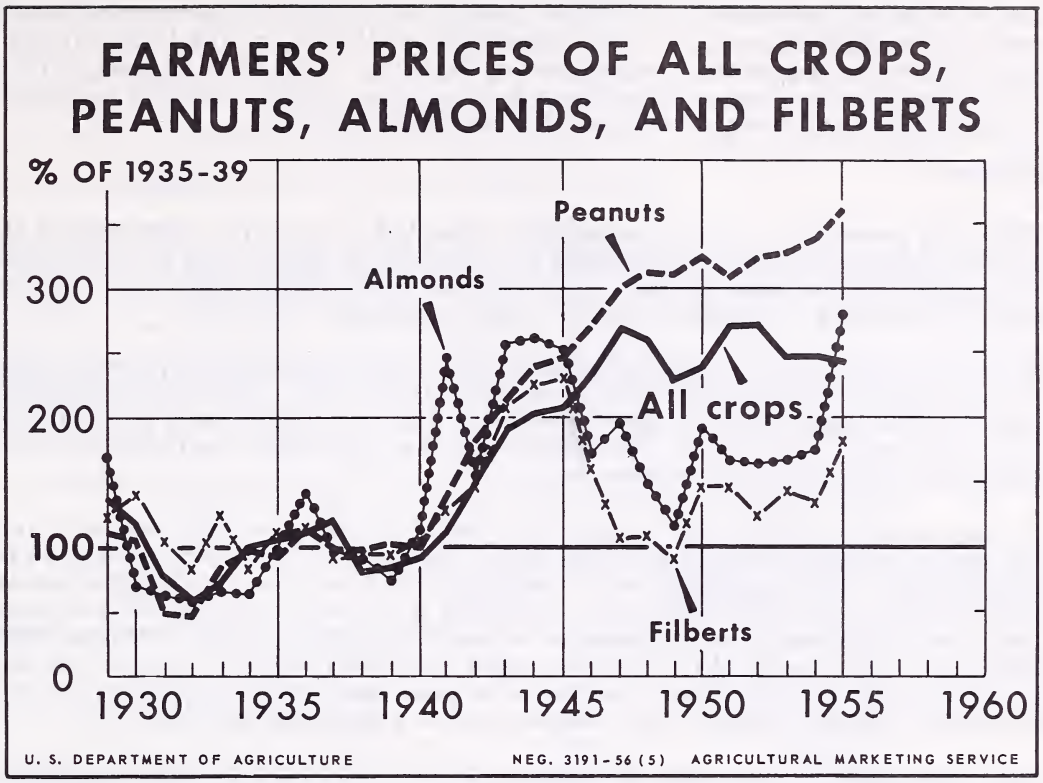


FIGURE 18

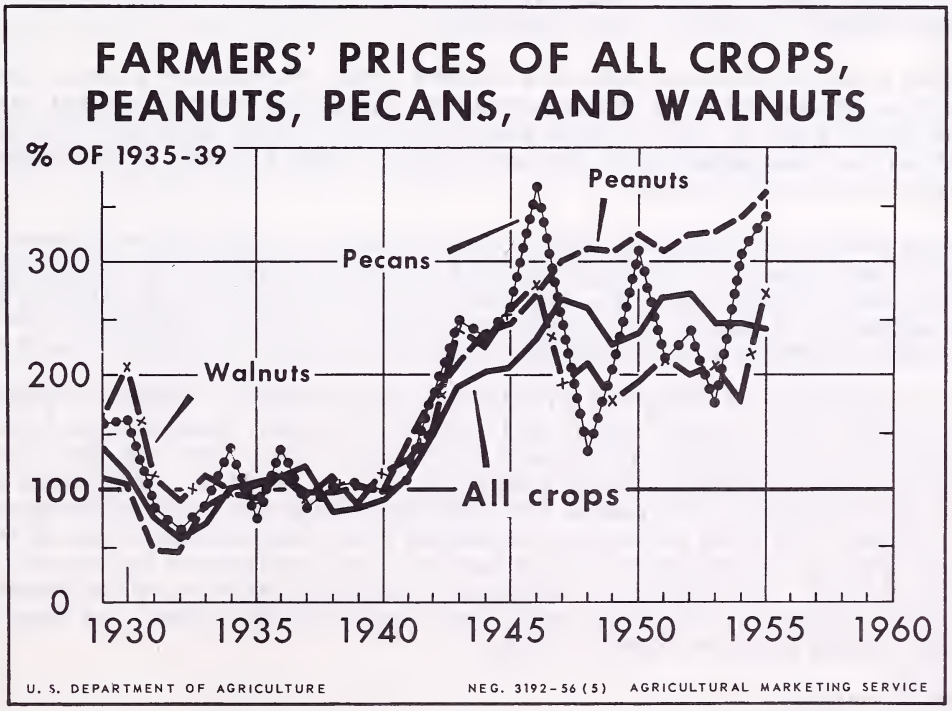


FIGURE 19

Average prices growers received for pecans increased 149 percent between the 1935-39 and the 1950-54 periods, while wholesale prices for in-shell and shelled pecans increased 106 and 133 percent, respectively. Growers' prices for walnuts during this period increased 99 percent while wholesale prices for in-shell walnuts increased 89 percent and prices for shelled meats increased 126 percent.

Competition

While the demand for nuts as a group is expected to increase, demand for the individual nuts is dependent upon the demand for products in which they are used and the degree of competition between the nuts for these end uses. The competition may be between the kinds of tree nuts or between tree nuts as a group and peanuts.

At the present time, the consumption of tree nuts shelled basis is small compared with the consumption of peanuts. During the 1950-52 period, 285 million pounds of peanuts were used annually by the salting and confectionery trades compared with 100 million pounds of tree nuts. In all uses, 290 million pounds of peanuts[7] were used annually compared with 169 million pounds of tree nuts.

In the shelled nut mixtures, peanuts predominate and tree nuts compete for the remaining share (usually about 25 percent) of the mixture. It is estimated that 73 percent of a total of 212 million pounds of nuts used by the salting trade during the period 1950-52 were peanuts. Cashews comprised 20 percent of the nuts used by the salting trade, but they were used as substitutes for peanuts in special mixtures rather than as replacements for other tree nuts. More almonds were used than filberts, pecans, or brazil nuts, but the percentage of each varies from year to year depending upon the price of each relative to the others. Walnuts are seldom used in salted nut mixtures.

The confectionery trade also uses more peanuts than all other nuts combined. Of the 168 million pounds of shelled nuts used annually by the confectionery trade during 1950-52, almost 75 percent were peanuts. Almonds comprised about 15 percent, followed by pecans with 5 percent and the remaining 5 percent consisting of about equal proportions of filberts, walnuts, cashews, and brazil nuts.

Peanuts compete with tree nuts to a limited extent in the baking trade, comprising approximately 12 percent of the total nuts used, compared with 43 percent pecans and 26 percent walnuts. Few, if any, peanuts are used in ice cream manufacturing or are sold to households in an unsalted form. Walnuts, pecans, and almonds predominate in these uses in approximately that order.

In some instances, however, there is practically no competition between nuts. For example, a manufacturer of candy bars using the word almond in the trade name would not use any other nut for this item, and would go to great lengths to obtain a sufficient supply of almonds. If it were impossible to purchase sufficient supplies of the grade or size needed at a satisfactory price on the domestic market, quantities would be imported.

The manufacturer of candy bars in the foregoing example, however, probably also produces walnut candy, pecan candy, and other nut candies. Competition in this sense would depend upon consumers' preference for almond candy, for example, over pecan candy and the manufacturer's cost of producing the two products. If almonds are expensive relative to pecans and it is therefore less expensive to produce the pecan candy, the manufacturer might curtail the production of almond candy and produce more of the pecan candy, providing that consumers did not have a strong preference for almond candy as against pecan candy. Manufacturers of mixed chocolates might vary the proportion of nut candies in the mixture as compared with, say, caramels or creams, or they might put in more walnut candy and fewer pecan pieces.

[7] Excluding peanut butter.

In the in-shell tree nut mixtures there is considerable direct competition between the kinds of tree nuts. Although these mixtures usually contain approximately 35 percent walnuts, this proportion varies and the percentage of the other nuts included depends largely on the price of the nuts. If almonds are cheap relative to pecans or filberts, more almonds and fewer pecans and filberts are included in the mixture. If walnuts are expensive relative to other nuts, the percentage of walnuts is decreased and the percentage of the other nuts increased depending on the price of each relative to the others. Peanuts are usually not included in mixtures of in-shall tree nuts.

The dominance of peanuts in those areas where they compete with tree nuts is due to price. Peanuts are much cheaper than tree nuts although percentagewise peanut prices have increased much more than prices for tree nuts. In 1954, the season average grower price for peanuts was $228 per ton compared to $498 for almonds, $320 for filberts, $564 for pecans, and $350 for walnuts. Converting these to a shelled basis and disregarding costs of shelling and any value of shells or other byproducts, peanuts cost the primary purchaser 16.3 cents per pound, shelled basis, compared with 40.0 cents for filberts, 44.9 cents for walnuts, 49.8 cents for almonds, and 70.5 cents for pecans.

TABLE 9.--Average prices per ton in-shell, pounds of nuts meats per ton of in-shell nuts, and value of nut meats per pound of in-shell nuts, 1954

Kind	Price per ton in-shell	Pounds of nut[1] meats per ton	Prices of nut meats per pound
	Dollars	*Pounds*	*Cents*
Peanuts	228	1,400	16.3
Almonds	498	1,000	49.8
Filberts	320	800	40.0
Pecans	564	800	70.5
Walnuts	350	780	44.9

[1] Conversion factors used: Peanuts, 0.70; almonds, 0.50; Filberts, 0.40; pecans 0.40; walnuts, 0.39.

The present price differential between peanuts and tree nuts is expected to continue. The production of tree nuts is a long-range enterprise in which the bulk of the costs are fixed while the production of peanuts is decided on annually by farmers and the costs of production are largely variable.

To increase the consumption of tree nuts at a rate greater than that which would be expected through normal population growth, the tree nut industry should first enhance the competitive position of tree nuts in those outlets where they already have a competitive advantage, i.e., the baking industry, sales to households unsalted for home cooking use, and ice cream manufacturing. Secondly, increased use of tree nuts by the confectionery and salting trades should be encouraged through research and advertising.

APPENDIX

List of tables in Appendix

Page

Table 10.--Walnuts, almonds, and filberts; bearing acreage in California, Oregon, and Washington 25
Table 11.--United States tree nuts; production by States, 1944-48 average, and individual crop years 1949 through 1955 26
Table 12.--United States production of tree nuts by kinds, 1929-1955..... 27
Table 13.--Imports of shelled tree nuts, 1929-1954 28
Table 14.--Imports of in-shell tree nuts, 1929-1954..... 29
Table 15.--Exports of shelled and in-shell tree nuts, 1940-1954..... 30
Table 16.--Apparent per capita civilian consumption of tree nuts (shelled basis), United States, crop years 1929-1953 31
Table 17.--Tree nuts: Supply and distribution, United States 1929-1954..... 32
Table 18.--Estimated sales of shelled tree nuts in the United States through various outlets, by kinds, annual average of years beginning October 1, 1950-52..... 33
Table 19.--United States season average grower prices per ton for domestic tree nuts, 1929-1955 34
Table 20.--New York price quotations by primary distributors for in-shell tree nuts of typical grades in wholesale size containers 1934-1955 35
Table 21.--New York price quotations by primary distributors for shelled tree nuts of typical grades in wholesale size containers, 1934-1955..... 36
Table 22.--Bearing, non-bearing, total acreage, and acres planted by years and standing in 1954, almonds and walnuts, California, 1919-1954 37

TABLE 10.--Walnuts, almonds, and filberts: Bearing acreage[1] in California, Oregon, and Washington, 1929-1955

Year	Walnuts			Almonds	Filberts			Grand total
	California	Oregon	Total	California	Oregon	Washington	Total	
	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres
1929	97.6	9.8	107.4	72.2	2.0	0.3	2.3	181.9
1930	102.9	10.4	113.3	72.1	2.5	.4	2.9	188.3
1931	107.7	11.0	118.7	71.7	3.1	.5	3.6	194.0
1932	110.3	11.7	122.0	71.2	3.7	.6	4.3	197.5
1933	113.9	12.4	126.3	71.0	4.3	.6	4.9	202.2
1934	117.5	13.0	130.5	71.0	4.8	.7	5.5	207.0
1935	121.1	14.7	135.8	71.1	5.6	.8	6.4	213.3
1936	123.9	16.4	140.3	69.8	6.3	.8	7.1	217.2
1937	125.9	18.1	144.0	71.0	7.0	1.0	8.0	223.0
1938	129.4	19.8	149.2	71.5	7.7	1.2	8.9	229.6
1939	129.9	21.5	151.4	73.2	8.5	1.5	10.0	234.6
1940	126.2	22.0	148.2	75.1	9.3	1.6	10.9	234.2
1941	124.3	22.5	146.8	77.2	10.0	1.8	11.8	235.8
1942	124.5	22.9	147.4	79.3	10.9	2.0	12.9	239.6
1943	125.8	23.3	149.1	82.0	11.7	2.1	13.8	244.9
1944	125.7	23.7	149.4	85.0	12.6	2.2	14.8	249.2
1945	126.9	24.0	150.9	88.4	14.4	2.3	16.7	256.0
1946	126.0	24.2	150.2	91.9	16.2	2.4	18.6	260.7
1947	126.3	27.4	153.7	93.8	19.8	2.6	22.4	269.9
1948	121.5	27.5	149.0	94.7	21.5	2.7	24.2	267.9
1949	115.8	27.6	143.4	95.4	22.9	2.9	25.8	264.6
1950	115.5	27.6	143.1	90.5	24.0	2.6	26.6	260.2
1951	[2] 114.2	27.6	141.8	90.7	23.6	3.2	26.8	259.3
1952	[2] 114.2	27.9	142.1	91.4	24.3	3.2	27.5	261.0
1953	[2] 115.0	28.5	143.5	92.2	24.0	3.0	27.0	262.7
1954	[2] 113.3	28.5	141.8	92.6	23.5	3.0	26.5	260.9
1955[4]	119.8	28.5	148.3	93.8	([3])	([3])	([3])	--

[1] Bearing age for almonds and filberts is about five years and for walnuts about nine years.
[2] Includes the estimated acreage for State of Washington, 1951 through 1954.
[3] Not available.
[4] Preliminary.

Source--1929-50--Crop Reporting Board, AMS, USDA--1951-1955--"Edible Tree Nuts" U. S. Tariff Commission, Sept. 1954. These data are based primarily on official statistics of the California and Oregon Crop Reporting Services and unofficial estimates of the Oregon Crop Reporting Service and Extension Service.

TABLE 11.--United States tree nuts: Production by States, 1944-48 average, and individual crop years 1949 through 1955

Commodity and area	1944-48 average	1949	1950	1951	1952	1953	1954	1955[1]
	Tons	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*
Almonds								
California.....	36,620	43,300	37,700	42,700	36,400	38,600	43,200	35,600
Filberts								
Oregon.....	6,080	9,700	6,000	6,100	11,000	4,300	8,000	6,900
Washington.....	1,014	1,310	680	820	1,250	660	670	500
Total.....	7,094	11,010	6,680	6,920	12,250	4,960	8,670	7,400
Pecans								
North Carolina.	1,081	1,252	820	1,218	1,273	1,890	500	200
South Carolina.	1,322	1,370	1,500	2,165	1,800	3,340	1,400	200
Georgia.....	15,321	8,500	20,500	25,750	25,250	28,300	10,000	2,000
Florida.....	1,937	1,565	2,075	2,640	2,150	3,650	1,280	2,500
Alabama.....	6,213	7,013	5,850	13,000	7,200	15,000	4,000	2,250
Mississippi....	3,350	5,000	1,850	6,800	3,000	8,525	2,300	2,750
Arkansas.....	1,989	2,450	1,225	2,675	1,450	5,325	1,275	2,550
Louisiana.....	5,795	8,500	4,550	7,850	6,750	12,000	5,250	8,500
Oklahoma.....	10,500	12,000	3,500	12,500	1,500	13,800	7,250	16,500
Texas.....	17,775	14,500	19,500	2,850	23,600	14,000	12,000	11,000
Total.....	65,283	62,150	61,370	77,448	73,973	105,830	45,255	48,450
Walnuts								
California.....	62,600	80,200	58,000	68,300	75,600	54,800	67,000	70,000
Oregon.....	7,460	7,900	6,300	9,100	8,200	4,400	8,400	5,400
Total.....	70,060	88,100	64,300	77,400	83,800	59,200	75,400	75,400
Total all nuts...	179,057	204,560	170,050	204,468	206,423	208,590	172,525	166,850

[1] Preliminary.

Source: Crop Reporting Board, AMS, USDA.

TABLE 12.--Tree nuts: United States production by kinds, 1929-1954

Season	Walnuts	Pecans			Almonds	Filberts	Total
		Improved	Seedling	Total			
	Tons	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*
1929	43,400	4,420	22,250	26,670	4,700	200	74,970
1930	30,300	6,938	21,630	28,568	13,500	300	72,668
1931	34,200	11,001	33,231	44,232	14,800	420	93,652
1932	49,100	5,906	28,211	34,117	14,000	490	97,707
1933	34,000	11,470	27,936	39,406	12,900	1,070	87,376
1934	47,100	9,734	18,352	28,086	12,000	1,210	88,396
1935	57,400	14,732	47,510	62,242	12,700	1,240	133,582
1936	45,800	16,129	13,765	29,894	10,700	2,100	88,494
1937	62,400	20,013	33,582	53,595	24,600	2,570	143,165
1938	55,300	17,646	19,516	37,162	18,400	2,440	113,302
1939	62,500	20,472	28,058	48,530	28,700	3,890	143,620
1940	50,800	21,063	40,379	61,442	15,000	3,210	130,452
1941	70,000	25,726	35,164	60,890	9,500	5,750	146,140
1942	61,200	22,691	15,996	38,687	31,500	4,270	135,657
1943	63,800	28,586	37,935	66,521	20,500	7,030	157,851
1944	71,800	30,574	40,458	71,052	31,700	6,520	181,072
1945	70,900	29,618	93,809	69,427	32,000	5,320	177,647
1946	71,900	16,746	21,366	38,112	47,200	8,450	165,662
1947	64,600	22,596	37,205	59,801	35,700	8,800	168,901
1948	71,100	38,766	49,256	88,022	36,500	6,380	202,002
1949	88,100	24,358	37,792	62,150	43,300	11,010	204,560
1950	64,300	30,449	30,921	61,370	37,700	6,680	170,050
1951	77,400	43,330	34,118	77,448	42,700	6,920	204,468
1952	83,800	37,340	36,633	73,973	36,400	12,250	206,423
1953	59,200	51,452	54,378	105,830	38,600	4,960	208,590
1954	75,400	19,480	25,775	45,255	43,200	8,670	172,525
1955[1]	75,400	11,395	37,055	48,450	35,600	7,400	166,850

[1] Preliminary.

Source: Crop Reporting Board, AMS, USDA.

TABLE 13.--Imports of shelled tree nuts, 1929-1954[1]

Year beginning Oct. 1	Almonds	Brazil	Cashew	Filberts	Pecans	Pignolia	Pistachio	Walnuts	Total
	Tons	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*
1935-39 average.....	2,633	4,547	12,889	1,095	77	175	223	2,181	23,820
1929.....	9,291	1,671	1,035	2,137	59	237	84	8,424	22,938
1930.....	6,482	2,479	4,333	2,371	261	233	77	8,163	24,399
1931.....	3,714	3,351	5,712	1,278	21	179	154	5,463	19,872
1932.....	2,240	3,132	4,774	1,450	38	168	176	2,780	14,758
1933.....	1,497	3,597	7,147	1,102	215	150	95	2,775	16,578
1934.....	1,786	4,562	10,408	1,058	192	176	195	2,705	21,082
1935.....	5,688	4,903	10,539	1,087	32	179	237	1,825	24,490
1936.....	5,003	4,065	13,034	1,114	95	213	195	2,706	26,425
1937.....	1,084	3,258	12,545	1,022	35	169	266	1,998	20,377
1938.....	778	4,568	15,672	777	81	163	156	2,202	24,397
1939.....	611	5,940	12,654	1,474	144	151	263	2,172	23,409
1940.....	1,416	8,111	17,839	418	4	68	209	2,320	30,385
1941.....	1,429	5,090	12,642	19	0	0	23	946	20,149
1942.....	579	229	2,770	27	82	29	0	62	3,778
1943.....	8,410	0	5,380	607	80	149	11	6	14,643
1944.....	9,645	0	12,171	4,798	159	130	93	6	26,974
1945.....	9,357	4,315	13,368	4,189	71	124	67	239	31,717
1946.....	3,031	3,218	15,502	4,876	196	141	106	469	27,540
1947.....	6,242	2,927	15,931	2,710	149	143	71	271	28,444
1948.....	4,699	3,371	18,212	3,651	14	114	112	1,439	31,612
1949.....	809	3,877	22,117	3,134	178	147	146	3,102	33,510
1950.....	6,558	2,868	27,272	2,158	326	142	220	3,750	43,294
1951.....	2,005	2,944	20,777	4,032	181	125	417	3,184	33,665
1952.....	2,761	3,369	23,179	2,135	110	151	102	3,578	35,385
1953.....	3,321	2,405	25,609	2,622	148	173	133	3,752	38,163
1954.....	661	2,335	27,925	3,321	194	190	122	3,470	38,218

[1] All imports by countries prior to 1934 were general imports. Beginning 1934 all imports by countries are imports for consumption.

Source: Foreign Agricultural Service, USDA.

TABLE 14.--Imports of in-shell tree nuts, 1929-1954

Year beginning Oct. 1	Almonds	Brazil	Chestnuts	Filberts	Pecans[1]	Pignolia[1]	Pistachio	Walnuts	Total
	Tons	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*
1935-39 average.....	324	10,344	8,728	956	--	--	1,326	82	21,760
1929.....	2,393	6,714	8,472	2,233	--	--	513	3,490	23,815
1930.....	12	13,516	9,364	3,570	--	--	474	1,777	28,713
1931.....	4	9,124	8,377	2,918	--	--	948	3,012	24,383
1932.....	73	10,797	13,269	2,835	--	--	1,080	906	28,960
1933.....	2	3,523	6,473	998	--	--	584	4	11,584
1934.....	38	10,505	7,341	1,232	--	--	1,195	15	20,326
1935.....	1,375	11,035	8,055	1,761	--	--	1,459	158	23,843
1936.....	240	8,966	9,351	1,940	--	--	1,506	37	22,040
1937.....	1	7,258	10,720	113	--	--	1,163	127	19,382
1938.....	2	10,488	8,311	323	--	--	904	68	20,096
1939.....	0	13,971	7,207	644	--	--	1,599	19	23,440
1940.....	3	11,169	4,445	22	--	--	1,825	0	17,464
1941.....	1	8,325	1,381	0	--	--	332	0	10,039
1942.....	0	812	819	0	[2] 74	0	0	0	1,705
1943.....	460	0	484	6	66	2	61	0	1,079
1944.....	201	0	361	36	7	0	930	0	1,535
1945.....	370	8,717	151	931	16	0	1,108	24	11,167
1946.....	14	13,240	3,572	1,305	113	0	3,402	118	21,764
1947.....	10	16,275	9,043	3	85	[3] 0	2,965	3	28,384
1948.....	3	10,818	8,887	52	0	4	2,106	34	21,904
1949.....	([3])	6,842	9,748	16	([3])	([3])	4,922	3	21,531
1950.....	141	8,121	9,858	0	10	15	3,590	59	21,794
1951.....	([3])	9,438	7,997	100	0	1	3,536	8	21,080
1952.....	0	10,608	9,023	74	0	18	2,748	53	22,524
1953.....	0	6,324	7,994	222	19	32	1,913	0	16,504
1954[4].....	0	5,660	6,776	0	19	0	3,654	0	16,109

[1] Pecans and pignolias separated as to shelled and in-shell Jan. 1, 1943; prior to 1943 considered shelled.
[2] January through September only.
[3] Less than 1,000 pounds.
[4] Ten months--September to June.

Source: Foreign Agricultural Service, USDA.

TABLE 15.--Exports of shelled and in-shell tree nuts, United States, 1940-1954

Year beginning October 1	In-shell[1]					Shelled[1]				
	Almonds	Filberts	Pecans	Walnuts	Total	Almonds	Filberts	Pecans	Walnuts	Total
	Tons	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*
1940.....	(2)	(2)	102	1,422	1,524	(2)	(2)	[3] 93	[3] 22	115
1941.....	(2)	(2)	26	1,208	1,234	(2)	(2)	16	81	97
1942.....	[3] 38	[3] 12	8	182	240	0	0	8	36	44
1943.....	80	222	1,394	1,216	2,912	0	0	281	13	294
1944.....	173	254	616	1,805	2,848	0	0	272	69	341
1945.....	160	146	1,239	3,327	4,872	0	0	474	135	609
1946.....	540	331	232	2,492	3,595	0	0	96	114	210
1947.....	143	425	102	1,769	2,439	0	0	219	428	645
1948.....	113	194	313	1,320	1,940	0	0	586	172	758
1949.....	225	239	83	1,659	2,206	0	0	332	24	356
1950.....	88	338	135	1,642	2,203	0	0	291	30	321
1951.....	148	346	347	1,521	2,364	[4] 509	[3] 5	326	35	361
1952.....	345	482	355	1,837	3,019	1,992	5	370	42	412
1953.....	341	222	273	1,553	2,389	3,986	10	467	56	4,519
1954.....	359	934	175	4,664	6,132	2,417	6	293	61	2,777

[1] Separated into in-shell and shelled as follows: Pecans and walnuts, Jan. 1, 1941 (considered to be "in-shell" prior to that date); Almonds, Jan, 1, 1952 (considered "in-shell" through Nov. 1951, "shelled" in Dec. of 1951); Filberts, Jan. 1, 1952 (considered to be "in-shell" prior to that date).

[2] Not available.

[3] January to September only.

[4] December to September only.

Source: Foreign Agricultural Service, USDA.

TABLE 16.--Apparent per capita civilian consumption of tree nuts (shelled basis), United States, crop years 1929-53[1]

Crop year	Almonds	Filberts	Pecans	Walnuts	Other[2]	Total
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	*Pounds*
1929.....	0.19	0.06	0.16	0.44	0.22	1.07
1930.....	.20	.06	.17	.33	.28	1.04
1931.....	.17	.04	.26	.31	.34	1.12
1932.....	.14	.05	.20	.35	.26	1.00
1933.....	.12	.03	.23	.32	.17	.87
1934.....	.11	.03	.16	.33	.34	.97
1935.....	.17	.04	.35	.34	.43	1.33
1936.....	.16	.05	.17	.27	.46	1.11
1937.....	.19	.03	.30	.38	.45	1.35
1938.....	.14	.03	.20	.32	.48	1.17
1939.....	.20	.05	.27	.37	.45	1.34
1940.....	.11	.03	.34	.32	.54	1.34
1941.....	.09	.04	.33	.44	.39	1.29
1942.....	.22	.03	.23	.34	.14	.96
1943.....	.23	.05	.37	.37	.07	1.09
1944.....	.35	.10	.40	.41	.16	1.42
1945.....	.33	.10	.37	.38	.24	1.42
1946.....	.35	.13	.20	.38	.40	1.46
1947.....	.30	.08	.30	.33	.44	1.45
1948.....	.29	.09	.43	.37	.48	1.66
1949.....	.26	.10	.30	.41	.52	1.59
1950.....	.32	.06	.30	.36	.55	1.59
1951.....	.29	.08	.37	.42	.46	1.62
1952.....	.25	.09	.35	.41	.48	1.58
1953.....	.24	.06	.48	.32	.48	1.58
1954[3].....	.22	.08	.20	.37	.56	1.43

[1] These data do not include inventory adjustments. Procedure used in calculating data same as in table 17.

2 Includes Brazil nuts, cashews, chestnuts, pignolia, pistache, and miscellaneous tree nuts.

[3] Preliminary.

Source: Consumption of Food in the United States, 1909-52, BAE, USDA. Data for 1953 and 1954 from Statistical and Historical Research Branch, Agricultural Economics Divisions, AMS.

TABLE 17.--Tree nuts: Supply and distribution, United States, 1929-54[1]

Crop year	In-the-shell basis							Loss in shelling process	Shelled basis	
	United States production[2]	Imports[3]	Total supply	Exports[3]	Shipments to territories	Military and war services[4]	Civilian disappearance		Net civilian disappearance	
									Total	Per capita
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	Pounds
1929	149,940	183,171	333,111	6,608	567	--	325,736	192,482	133,254	1.07
1930	145,335	186,242	331,577	7,303	494	--	323,780	192,800	130,980	1.04
1931	187,303	182,141	369,444	9,417	635	--	359,392	218,249	141,143	1.12
1932	195,414	125,706	321,120	6,845	583	--	313,692	186,278	127,414	1.00
1933	174,752	142,401	317,153	25,710	613	--	290,830	179,126	111,704	.87
1934	176,792	163,505	340,297	12,462	609	--	327,226	202,355	124,871	.97
1935	267,165	214,274	481,439	18,241	626	--	462,572	289,728	172,844	1.33
1936	176,987	236,878	413,865	18,323	658	--	394,884	249,876	145,008	1.11
1937	286,330	197,005	483,335	15,063	717	--	467,555	291,076	176,479	1.35
1938	226,603	211,097	437,700	17,207	831	--	419,662	265,158	154,504	1.17
1939	287,360	199,106	486,466	12,758	1,009	--	472,699	293,682	179,017	1.34
1940	261,004	245,838	506,842	5,559	952	--	500,331	320,007	180,324	1.34
1941	291,967	205,848	497,815	6,085	1,156	--	490,574	314,620	175,954	1.29
1942	265,214	64,375	329,589	1,726	938	2,000	324,925	198,969	125,956	.96
1943	315,352	77,452	392,804	6,956	941	2,160	382,747	240,472	142,275	1.09
1944	360,474	182,808	543,282	8,167	2,348	12,836	519,931	335,136	184,795	1.42
1945	354,314	239,303	593,617	29,252	2,032	7,586	554,747	361,260	193,487	1.42
1946	330,405	251,028	581,433	15,799	1,633	1,924	562,077	354,005	208,072	1.46
1947	336,512	245,339	581,851	10,733	1,610	--	569,508	355,899	213,609	1.45
1948	402,353	293,506	695,859	11,679	--	--	684,180	433,525	250,655	1.67
1949	379,760	285,277	665,037	13,007	--	--	652,030	408,491	243,539	1.59
1950	338,060	372,651	710,711	11,059	--	--	699,652	451,271	247,381	1.59
1951	408,075	293,515	701,590	11,202	--	--	690,388	432,737	257,651	1.63
1952	400,406	312,039	712,445	16,424	--	--	696,021	441,217	254,304	1.58
1953	416,330	326,514	742,844	26,126	--	--	716,718	459,230	257,488	1.58
1954[5]	342,450	391,430	733,880	37,651	--	--	696,229	458,966	237,263	1.43

[1] These data on tree nuts include almonds, filberts, pecans, walnuts, Brazil nuts, pignolia, pistachio, chestnuts, cashews, and miscellaneous tree nuts.
[2] Almonds, filberts, walnuts, and pecans only; no reports on other nuts.
[3] Foreign trade data on a fiscal-year basis, beginning July 1 of year indicated.
[4] Estimated requirements.
[5] Preliminary.

Source: Consumption of Food in the United States, 1909-52, BAE, USDA. Data for 1953 and 1954 from Statistical and Historical Research Branch, Agricultural Economics Division, AMS.

TABLE 18.--Estimated sales of shelled tree nuts in the United States through various outlets, by kinds, annual average of years beginning October 1, 1950-52

Outlet	Total	Almonds	Filberts	Pecans	Walnuts	Cashews	Brazils
	Million pounds	*Million pounds*	*Million pounds*	*Million pounds*	*Million pounds*	*Million pounds*	*Million pounds*
Confectionery.....	43	25	2	8	3	3	2
Salting.....	57	5	3	3	--	43	3
Baking.....	37	3	2	18	11	2	1
Households (unsalted).....	20	4	(1)	5	11	--	(1)
Ice cream.....	8	2	(1)	5	1	--	(1)
Other.....	4	(1)	(1)	2	2	(1)	(1)
Total.....	169	39	7	41	28	48	6
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Confectionery.....	25	64	28.5	20	11	6	33
Salting.....	34	13	43	7	--	90	50
Baking.....	22	8	28.5	44	39	4	17
Households (unsalted).....	12	10	(2)	12	39	--	(2)
Ice cream.....	5	5	(2)	12	4	--	(2)
Other.....	2	(2)	(2)	5	7	(2)	(2)
Total.....	100	100	100.0	100	100	100	100

[1] Probably less than one-half million pounds.
[2] Less than 1 percent.

Source: U. S. Tariff Commission.

TABLE 19.--U. S. season average grower price per ton, for domestic tree nuts 1929-1955

Season	Almonds	Filberts	Pecans	Walnuts
	Dollars	*Dollars*	*Dollars*	*Dollars*
1929	480	300	294	321
1930	200	340	298	410
1931	176	250	156	223
1932	165	202	120	179
1933	186	297	160	224
1934	180	202	252	191
1935	280	263	136	203
1936	402	270	248	217
1937	275	217	154	181
1938	258	225	188	221
1939	209	226	194	168
1940	324	250	178	230
1941	704	306	206	252
1942	442	352	342	307
1943	732	499	460	478
1944	744	540	432	446
1945	720	551	478	509
1946	486	384	676	554
1947	558	252	452	381
1948	422	258	246	417
1949	330	219	376	351
1950	546	350	574	385
1951	472	351	394	428
1952	464	299	440	396
1953	476	344	322	412
1954	498	320	564	350
1955	800	440	628	540

Source: Crop Reporting Board and the Statistical and Historical Research Branch, Agricultural Marketing Service, USDA.

TABLE 20.--New York price quotations by primary distributors for in-shell tree nuts of typical grades in wholesale size containers, 1934-1955[1]

Period or season beginning October[2]	Pecans, large	Walnuts, first quality large	Almonds, Ne Plus or IXL	Filberts, round large
	Cents	*Cents*	*Cents*	*Cents*
1934	20	20	16	14
1935	16	18	23	17
1936	18	20	30	14
1937	15	18	19	16
1938	16	19	18	18
1939	15	17	16	17
1940	16	19	22	19
1941	16	21	26	21
1942	22	22	26	24
1943	38	32	45	30
1944	38	32	47	33
1945	37	34	44	34
1946	44	40	32	30
1947	35	32	38	25
1948	28	34	30	23
1949	28	32	22	22
1950	38	31	33	26
1951	34	35	32	28
1952	31	35	34	29
1953	29	37	34	31
1954	33	34	35	29
1955[3]	45	42	44	33

[1] When quotations for grades indicated were not reported, quotations for comparable grades were substituted. The containers were primarily in 100-pound-bags. Prices for wholesale lots or packs containing cellophane bags about 3 cents higher.

[2] Simple average of October, November, and December prices of years shown.

[3] October prices only.

Source: New York Journal of Commerce; Nut Distributors' price lists, brokers' quotations. Series on walnuts are prices of California Walnut Growers Association except as noted.

Compiled by the U. S. Tariff Commission.

TABLE 21.--New York price quotations by primary distributors for shelled tree nuts of typical grades in wholesale size containers 1934-1955[1]

Period or season beginning October[2]	Pecans, Medium halves about 550 per pound	Walnuts, first quality California light pieces	Almonds, non-pariel 23 - 25 per ounce	Filberts Turkish Reg. 30 - 35 per ounce
	Cents	*Cents*	*Cents*	*Cents*
1934	54	34	39	31
1935	35	32	45	32
1936	44	36	57	33
1937	40	34	43	28
1938	43	37	36	36
1939	46	37	34	25
1940	40	37	54	43
1941	41	41	84	66
1942	85	63	89	70
1943	89	78	90	77
1944	88	78	91	65
1945	93	78	85	60
1946	125	84	71	48
1947	75	76	70	43
1948	67	79	52	34
1949	89	[3] 66	51	40
1950	109	78	70	64
1951	80	77	64	46
1952	85	77	62	48
1953	76	81	62	56
1954	(Est.) 140	(Est.) 83	(Est.) 75	(Est.) 57
1955	(Oct.) 150	(Oct.) 95	(Nov.) 98	(Nov.) 77

[1] When quotations for grades indicated were not reported, quotations for comparable grades were substituted. Pecans in 30-pound cartons, walnuts in 25-pound cartons, almonds in 100-pound bags, filberts in 176-pound bags.

[2] Prices are simple averages of 12-month quotations beginning October of year shown. In some months quotations were not available and annual average price is average of months that were quoted.

[3] October-April average.

Source: New York Journal of Commerce, nut distributors' price lists, brokers' quotations. Compiled by U. S. Tariff Commission.

TABLE 22.--Bearing, nonbearing, total acreage, and acres planted by years and standing in 1954, almonds and walnuts, California, 1919-1954

Year	Almonds				Walnuts			
	Bearing	Non-bearing	Total	Acres planted during year and still standing in 1954[1]	Bearing	Non-bearing	Total	Acres planted during year and still standing in 1954[1]
1919.....	31,950	33,294	65,244		70,364	32,785	103,149	
1920.....	35,810	34,265	70,075		72,813	34,769	107,582	
1921.....	39,510	35,683	75,193		75,411	37,056	112,467	
1922.....	46,670	32,431	79,101		78,341	40,043	118,384	
1923.....	51,590	30,415	82,005		80,779	44,280	125,059	
1924.....	55,370	27,294	82,664		82,120	48,541	130,661	
1925.....	60,120	22,962	83,082		83,654	52,299	135,953	
1926.....	63,640	18,566	82,206		86,091	54,626	140,717	
1927.....	66,970	14,680	81,650		88,987	54,705	143,692	
1928.....	70,920	10,022	80,942		92,629	53,685	146,314	
1929.....	72,210	8,328	80,538		97,588	51,749	149,337	
1930.....	72,100	7,908	80,008		102,888	47,571	150,459	
1931.....	71,660	8,337	79,997		107,687	45,378	153,065	
1932.....	71,240	8,575	79,815		110,326	40,497	150,823	
1933.....	71,010	9,829	80,839		113,914	37,322	151,236	
1934.....	71,050	10,976	82,026		117,474	34,262	151,736	
1935.....	71,130	12,981	84,111		121,109	31,783	152,892	
1936.....	69,836	14,805	84,641		123,929	29,527	153,456	
1937.....	70,980	15,747	86,727		125,909	26,185	152,094	
1938.....	71,529	17,985	89,514		129,434	23,487	152,921	
1939.....	73,238	19,914	93,152		129,876	22,315	152,191	
1940.....	75,051	22,238	97,289	5,165	126,224	22,292	148,516	4,143
1941.....	77,186	22,612	99,798	2,778	124,303	21,961	146,264	2,346
1942.....	79,323	22,072	101,395	2,445	124,458	21,675	146,133	2,721
1943.....	81,981	21,034	103,015	2,116	125,768	20,736	146,504	1,901
1944.....	84,961	20,093	105,054	2,172	125,679	21,144	146,823	2,640
1945.....	88,398	18,575	106,973	2,880	126,941	22,068	149,009	3,519
1946,,,.....	91,920	18,621	110,541	3,704	126,039	24,983	151,022	5,093
1947.....	93,780	18,409	112,189	3,684	126,299	27,059	153,358	5,305
1948.....	94,749	18,296	113,045	3,091	121,451	28,616	150,067	3,897

Continued

TABLE 22.--Bearing, nonbearing, total acreage, and acres planted by years and standing in 1954, almonds and walnuts, California, 1919-1954--Continued

Year	Almonds				Walnuts			
	Bearing	Non-bearing	Total	Acres planted during year and still standing in 1954[1]	Bearing	Non-bearing	Total	Acres planted during year and still standing in 1954[1]
1949.....	95,377	18,554	113,931	2,326	115,772	29,224	144,996	3,219
1950.....	90,496	17,911	108,407	1,529	115,527	29,712	145,239	3,172
1951.....	90,694	16,272	106,966	1,534	114,212	28,362	142,574	2,492
1952.....	91,379	13,561	104,940	1,048	114,228	27,185	141,413	1,747
1953.....	92,206	10,928	103,134	880	114,972	24,722	139,694	2,521
1954.....	92,633	8,752	101,385	1,035	113,263	22,823	136,086	1,643

[1] Estimates beginning 1948 are complete enumerations.

Source: California Cooperative Crop Reporting Service, acreage estimates, California fruit and nut crops as of 1954.

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